ERIC Document Resume | See Instruction Sheet | DATE OF RESUME 7/2/65 | DATE RECEIVED 6/28/65

A. PUBLICATION DATA

1. ERIC NUMBER ED001269
2. ORIGINATOR CONTROL NO(S). N.A.
3. IDENTIFICATION NO. N.A.
4. AUTHOR(S): Baltimore County Public Schools, Baltimore, Maryland
5. TITLE OF DOCUMENT ABSTRACTED: A Curriculum Guide for An Elective Art Course in the Senior High School
Fine Arts: Painting, Print Making, Sculpture
6. PUBLICATION TITLE: N.A.
7. EDITOR(S): Helwig, G. Alfred et al.
8. PLACE OF ORIGIN
ORG. Baltimore County Pub. Schools
ST. Baltimore, Md.
CITY, STATE
TELE. EXT.
INST/LOC CODE
9. PUBLISHER OR SOURCE Baltimore County Public Schools

10. VOL.	11. PAGES	12. MO./YR.	13. TOTAL PP.
N.A.	N.A.	61	122

DO NOT WRITE IN SPACE BELOW

MICROFILM COPY AVAILABLE YES ☒ NO ☐

COPYRIGHT GRANTED YES ☐ NO ☒

COPYRIGHT RELEASE FILED YES ☐ NO ☐

TYPE OF REPORT
PROPOSAL ☐
IN-PROGRESS ☐
FINAL ☒
FOLLOW-UP ☐

OTHER ERIC REFERENCES:

ERIC SATELLITE CODE

B. INDEXING DATA

14. SUBJECT AREA
15. TYPE OF ENDEAVOR Curriculum Guide

16. INDEXING TERMS (3-12)

Fine Arts	Print Making	Teaching Guide	Senior High School	
Painting	Art	Testing		
Sculpture	Curriculum Development	Laboratory		

17. ABSTRACT (MAX. 250 WORDS)

An alternate, second-year elective art course in senior high school follows a prerequisite 10th grade course, Fundamentals of Art. General aims are: to stimulate the student's sensitivity to and appreciation of art; to increase enjoyment of creative expression; to teach the fundamentals and techniques helpful in solving art problems; to offer a basis for evaluation of art qualities and products; to help the student develop vocational insights; and to develop an active relationship between art and contemporary living. More specifically, this course is designed to help the student realize the development of painting, print making, and sculpture in terms of personal skills and of appreciation.

Units outlined are: pictorial composition, painting still life, people, collage; modeling and casting; print making; carving; construction; and landscape painting. Each study guide consists of several suggested approaches, a number of recommended activities, and a critique for evaluating effectiveness. Because art activities have complex and subtle human behavior relationships that demand great understanding, particular attention is given to the area of evaluation. In addition to a critique with each unit, a guide for teacher and student evaluation is included in the introductory section.

ERIC No.
18. SOURCE OF ABSTRACT

C. FUNDING DATA

19. SUPPORTING ORGANIZATION
20. DIVISION OR DEPT.
21. CONTRACT NO.
PROJECT NO.
22. TOTAL COST OF PROJECT
23. DURATION OF PROJECT

U.S. Department of Health, Education, and Welfare
Office of Education

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U. S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
OFFICE OF EDUCATION

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ED001269

SENIOR
HIGH SCHOOL
CURRICULUM GUIDE

FINE ARTS:
PAINTING
SCULPTURE
PRINT MAKING

BALTIMORE COUNTY PUBLIC SCHOOLS

BALTIMORE COUNTY PUBLIC SCHOOLS

A CURRICULUM GUIDE FOR AN ELECTIVE ART COURSE IN THE SENIOR HIGH SCHOOL

FINE ARTS: PAINTING, PRINT MAKING, SCULPTURE

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Towson, Maryland
1961

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FOREWORD

Fine Arts: Painting, Print Making, and Sculpture is a study outline developed by a committee of art teachers in the elective program for the senior high school. The course is the result of a study in which many secondary school art teachers participated.

The point of view in this course of study continues the elementary and junior high emphasis on creative expression and appreciation. The introductory art course in the senior high school, Fundamentals of Art, is a prerequisite for two alternate second-year elective courses, one of which is Fine Arts: Painting, Print Making, and Sculpture. The alternate course is Art in Business and Industry. Very able students who have completed the prerequisite of the Fundamentals of Art course and one of the alternate second-year courses are encouraged to arrange a Studio Practice course, emphasizing individual programming.

Fine Arts: Painting, Print Making, and Sculpture is tentative and presumes continuous teacher evaluation. The materials have been planned to be used in an experimental spirit, with the idea that all teachers will use these foundation outlines for daily teaching with a constructive attitude. The plan is for each teacher to use the basic framework of units and the major problem areas under each unit to cue creative teaching plans. As teachers continue to share judgments there will come more active insight into the art needs, interests, and capabilities of senior high school pupils in a fine-arts-centered elective course.

The Board of Education and the Superintendent of Schools wish to express their appreciation to the curriculum committee and to all the senior high school art teachers of Baltimore County whose efforts made possible the development of this curriculum outline and to Mrs. Marie Groton, secretary to the committee.

Edward G. Stapleton
Superintendent of Schools

September 1, 1961

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GOALS FOR EDUCATION IN BALTIMORE COUNTY

The philosophy underlying the instructional program in the Baltimore County system of public schools rests upon a bedrock of philosophy which is peculiar to America: The strength of the State is the individual, and the strength of the individual is the State. Society, and the citizens who make up society, are complementary forces, advancing simultaneously, each strengthening the other as they advance. This basic concept of democracy adapts itself to each era of time, but never changes materially.

A two-fold responsibility faces the schools of America. In behalf of the State, they must perpetuate American social, economic, political, and ethical values and freedoms. In behalf of the individual, they must produce young adults capable of achieving self-realization within the framework of American and world society.

Carefully defined goals help the schools of Baltimore County fulfill this dual responsibility of education. They are:

1. Develop intellectual and academic competence by helping the pupil

    a. Value the objective search for truth as the end of all learning.
    b. Acquire command of the fundamental skills.
    c. Gain an understanding of the basic concepts in the major fields of learning.
    d. Utilize knowledge effectively.
    e. Respect achievement and desire intellectual growth.
    f. Grow in powers of critical thinking; in ability to analyze and solve problems.
    g. Prepare for future educational experiences.

2. Develop and maintain sound mental and physical health by helping the pupil

    a. Understand the importance of a healthy mind and body.
    b. Enjoy a well-balanced program of physical fitness and recreational activities.
    c. Utilize the cultural, social, and medical resources available for maintaining good health.
    d. Improve the health and safety conditions in the school, home, and community.
    e. Make sound choices in the use of time.
    f. Acquire realistic goals and wholesome attitudes toward life.

3. Develop moral, ethical, and spiritual values by helping the pupil

   a. Understand the relationship of a system of values to the making of choices in life.
   b. Recognize and respect the rights and privileges of others.
   c. Understand and practice conduct essential for wholesome living.
   d. Understand the contributions of religion as a moral influence on the individual and society.

4. Develop effective membership in the family by helping the pupil

   a. Understand the relationship of a strong family unit to a stable society.
   b. Understand the privileges, responsibilities, and mutual interdependence of family members.
   c. Acquire skills in family living.

5. Develop responsible citizenship by helping the pupil

   a. Acquire knowledge, understanding, and appreciation of our heritage and of the rights and responsibilities of American citizenship.
   b. Grow in the ability to make decisions based on valid conclusions.
   c. Become aware of community problems and be willing to share responsibility for promoting desirable community life.
   d. Understand the role of America in a world society.
   e. Recognize the worth of each individual and work for the preservation of human rights throughout the world.

6. Develop an appreciation for other cultures by helping the pupil

   a. Understand and respect the contributions of national and racial groups to America and to the world.
   b. Understand the contributions of the American culture to other peoples.
   c. Understand the similarities and differences in world cultures and the common needs of all peoples.
   d. Understand the advantages of travel in foreign lands.
   e. Utilize the contributions of other cultures as a source of personal enrichment.
   f. Become acquainted with a foreign language.

7. Develop economic and vocational competence by helping the pupil

    a. Gain respect for the dignity of useful work.
    b. Understand the role of free enterprise in a democratic society.
    c. Learn to be an intelligent consumer.
    d. Experience the satisfactions of good workmanship.
    e. Understand the availabilities and requirements of various vocational opportunities.
    f. Acquire appropriate technical and vocational skills.
    g. Learn the importance of the conservation of human and natural resources.
    h. Understand the interrelationship of economic and political structures.

8. Develop a growing appreciation of beauty by helping the pupil

    a. Understand the relationship of art to life.
    b. Become aware of natural beauty.
    c. Find opportunities to enjoy art, music, and literature.
    d. Discover and cultivate aesthetic interests and talents.
    e. Become an intelligent consumer and active supporter of the arts.
    f. Understand and experience the disciplines of the various arts.

9. Develop leisure time interests by helping the pupil

    a. Understand the importance of a balance between work and leisure.
    b. Participate in individual and group leisure time activities.
    c. Become resourceful in seeking varied and worthy leisure time pursuits.

10. Develop adaptability to change by helping the pupil

    a. Realize that change is necessary to life.
    b. Evaluate the effects of change on society and on the individual.
    c. Understand the effects of the rapid scientific and technological developments of recent years.
    d. Realize that there is an open frontier in all areas of knowledge.
    e. Cultivate mental and emotional stability.

OBJECTIVES OF THE ART PROGRAM
IN THE SECONDARY SCHOOLS

Art makes a definite contribution to the education of a well-integrated and cultured young person. The overall plan of the art program in the secondary schools seeks to establish a general art knowledge and background which are allied to aspects of life in the school and in the community and related to the personal interests of the junior high school pupil. In addition, in the ninth grade, the program emphasizes a point of view that art experiences are essential in daily living. Art experiences are designed to develop the student's appreciations, skills, and abilities in a functional and personal manner.

In the senior high school, the student who elects art is generally interested in creative expression. This young person seeks an awareness and understanding of art principles in order to work in accordance with his own ideas and feelings, rather than by set rules. He should be guided into a working understanding of how art principles may function in his own creative expression.

Aims of the art program have clarified over a period of years. They serve as criteria for planning and teaching in various activities. In them we find a most helpful source of evaluation.

OUR AIMS

1. To stimulate the student's sensitivity to and appreciation of art

   The teacher wishes to go beyond such generalizations as "to develop culture" or "to enrich life," and evolve a functioning interest in art. Painting and sculpture will hold interest when the learner has experienced good examples. The student can realize how deeply the utilitarian arts influence his own daily activities, when the design in clothes, books and buildings are related to his life needs. The teacher brings to life all the facets of student interest. The means are many. Helping students have creative experiences in planning and production is one effective method. Participation in practical experiences of the contemporary business world is another. Whatever the method, the pupil should feel, think, and do for himself with vigor and force.

2. To increase enjoyment of creative expression

   Art experiences should stimulate and satisfy aesthetic and emotional needs as well as utilitarian. Art fields open to the student when he begins to understand the artists' problems and ways of seeking solutions. An art course which bases content and methods on direct solutions to real problems brings real creativity. We begin to recognize individual differences more and more.

Some students will reveal greater satisfaction in working with clay or three-dimensional materials. Others will enjoy creating with colors, applying them to canvas or paper in representation or in abstract composition. Others will prefer to analyze art objects, to visit galleries, to discuss and read about art. Both discussion and laboratory activities of a wide range give students opportunity to find satisfaction in art expression.

3. To teach the fundamentals and techniques which will be most helpful to the student in solving his art problems

As the needs and capacities of the students are considered it will become apparent that each one has more than one type of need. Learning by doing is a well-known principle. If we wish to help a student learn to solve his problems, the best method is to help him work with problems. The whole course is organized on this experience basis. Laboratory activities are a series of problem situations in which the student will project plans and work to produce solutions. To facilitate this type of learning, the student is given, in terms of his capacity, the benefit of knowledge and experience from the past. As the knowledge is absorbed and applied by the student, the need for his own thinking is recognized.

4. To offer a basis for evaluation of art qualities and products

The extent to which taste can be developed varies, but we can offer the student a satisfactory basis for evaluating the art products which he sees. The chance influences of general environment may lead to personal prejudices and tastes which have little sound foundation. Every effort should be made to give the student the benefit of available knowledge and experience. We present art problems which encourage the student to evaluate the solution in terms of the problems. Seeing varied solutions and engaging in discussion in the laboratory will emphasize judgment, and the reasoning behind the judgment, as well.

5. To provide a transition from the general art program of the junior high school to an art education program suiting the needs and interests of adolescents talented in art

Our general education program has helped students have some judgments in making choices and in improving their personal surroundings, but ugliness abounds in some home environments. This course should continue to help students know how to improve poorly balanced arrangements, develop pleasing layouts in notebook collections, and apply the principles of design to meet everyday needs.

Motivation to make use of knowledge and experience is as important as the knowledge itself. The student is encouraged to apply design principles to his own clothes, to his own room, to school exhibits; he is encouraged to apply what he knows about materials in selecting products he purchases. This point of view influences our general art program.

6. To help the talented student develop vocational insights; to encourage satisfying avocational interests

Art professions are in the street, the shop, and the home, and are no longer isolated in a "Fine Arts Ivory Tower." Many able students fear art is something apart from productive living. Every experience can help to clarify how and where art is used, and why it is important.

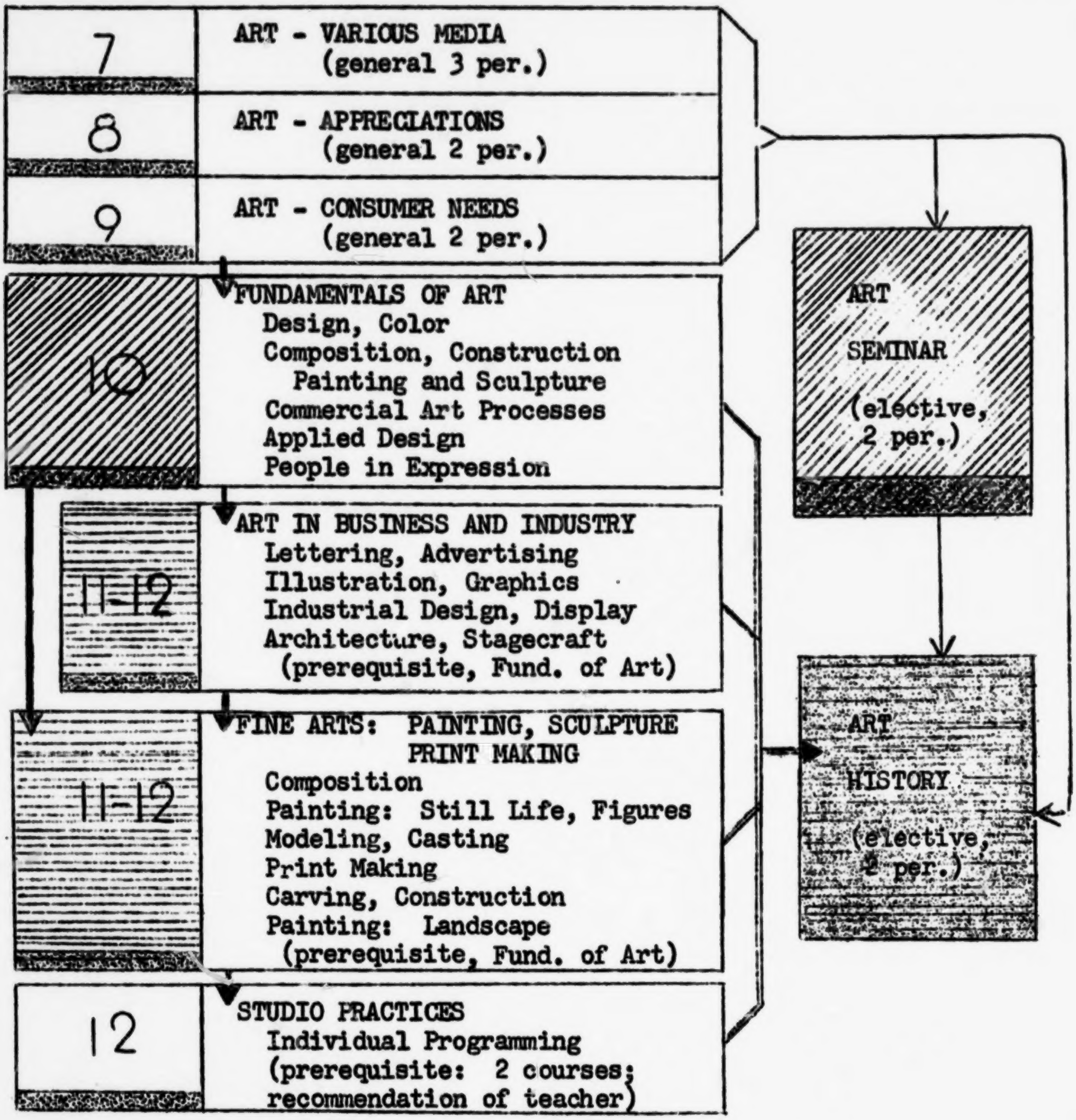
Guidance in the art room can help young people evaluate their interests and abilities with realism. If these foundation art courses arouse sincere interest in an art career, guidance may then lead to other helpful study and eventually, to a training program for an art career.

7. To develop an active relationship between art and contemporary living

Students gradually develop attitudes toward art in directions which are socially useful and individually satisfying for contemporary living. Within the school the student learns to correlate art expression with varied curricular activities. He needs opportunities to work out the relationship between his own art expression and daily living. Also, he needs experiences which will help him develop his own feeling of relationship between general contemporary art and daily living. It is probable that the most efficient way to develop attitudes is through applied knowledge, but an open-minded rational approach to art is needed for the student to evaluate without prejudice.

Although art as a unifying force in developing personality has probably been overstressed by some theorists, it is important. Also, if art is to be socially functional, the individual must look at it in a manner that will lead to social integration. This means the student will look at housing developments in the light of sociology and economics, and the post office mural painter will choose his subjects in terms of his community. Experience gives ample proof that such attitudes help with the development of the integrated individual.

SCOPE AND SEQUENCE OF THE ART PROGRAM



7	ART - VARIOUS MEDIA (general 3 per.)
8	ART - APPRECIATIONS (general 2 per.)
9	ART - CONSUMER NEEDS (general 2 per.)
10	FUNDAMENTALS OF ART Design, Color Composition, Construction Painting and Sculpture Commercial Art Processes Applied Design People in Expression
11-12	ART IN BUSINESS AND INDUSTRY Lettering, Advertising Illustration, Graphics Industrial Design, Display Architecture, Stagecraft (prerequisite, Fund. of Art)
11-12	FINE ARTS: PAINTING, SCULPTURE PRINT MAKING Composition Painting: Still Life, Figures Modeling, Casting Print Making Carving, Construction Painting: Landscape (prerequisite, Fund. of Art)
12	STUDIO PRACTICES Individual Programming (prerequisite: 2 courses; recommendation of teacher)

ART SEMINAR (elective, 2 per.)

ART HISTORY (elective, 2 per.)

▨ Fundamentals of Art, Art Seminar, elective in senior high.

▤ Elective art courses open to juniors and seniors.

▩ Art History is also integrated with all art experiences.

→ Light arrows indicate courses of general interest.

➡ Heavy arrows denote elective art major courses.

FINE ARTS: PAINTING, PRINT MAKING, SCULPTURE

POINT OF VIEW

For the interested young person emerging from the introductory fundamentals of the art program, the senior high school provides this elective course to develop special understandings and abilities in the fine arts field. The pursuit of this program should help students realize the development of painting, print making and sculpture in terms of personal skills and of appreciation.

Personal experience is an important aspect of all art learning. For the talented young art student a normal curiosity and interest in cause and effect encourages study of both why and how man works as an artist. To meet educational needs for the art talented, this course has been organized to encourage individual choices, according to interests, and also to guide a development that is progressive, sequential, and cumulative. This course is identified as a major art area for any high school student who elects an art program; these advancing experiences are important for the young student who plans to attend an art college.

For the talented pupil we desire guidance which will foster creative ability. How can this type of guidance be established? First of all, there is a place for the continuing study and use of design principles basic in all art expression. The integrated study of the field of historical and contemporary art brings out principles concerning the functional values of art expression. Such analytic study is invaluable when it provides a large frame of reference for solving individual problems in the creation of artistic form. Design and composition become more complex. Design judgments implement personal expression; appreciation is made vital. To this end, we give much attention to the kind and quality of design in student experiences: in painting with different media and subject matter; in print making; and in sculpture.

Such study must be carried forward with understanding that design or composition is only one aspect of fine art expression. We must see clearly the integral relationship of inner purpose in expression through painting, or print making, or sculpture, in terms of human needs. Otherwise the study of design is loaded with the danger of isolation from basic expressive purpose, the danger of superficial technicality.

If teaching for fine art expression in terms of painting, print making, and sculpture fulfills its purposes fully and richly, it will be concerned with meaningful expression. Its principles will be understood as means, not as ends and it will be specifically related to man's continuous effort to create art forms to improve the quality of human understanding along with the conditions of human living.

KNOWLEDGES, APPRECIATIONS, AND ABILITIES

Knowledges

1. To know the meanings of art elements and principles more fully
2. To become familiar with fundamental human needs underlying all fine art expression
3. To become familiar with fundamental aesthetic problems related to basic art forms
4. To know the possibilities and limitations of art materials
5. To know the functions of fine art in the contemporary world
6. To know the techniques and processes in art expression, with increasing depth

Appreciations

1. To look at contemporary problems from an analytic point of view
2. To look at contemporary experimental art solutions with an open mind
3. To recognize that a variety of solutions for any art quest may come into existence due to specific conditions
4. To recognize the social values of art
5. To recognize the importance of art in everyday life
6. To recognize the different types of satisfaction which a fine art object may give
7. To recognize the value of the imaginative use of materials and tools

Abilities

1. To evaluate art problems wisely
2. To select pleasing art forms from miscellaneous offerings
3. To use clear terminology in discussing art
4. To express thoughts and feelings with increasing satisfaction
5. To meet creative needs with more personal confidence in handling materials and tools

EVALUATION

The term "Evaluation" summons up visions of tests. When art to a great extent is made up of emotions and attitudes, how may one arrive at a fair judgment by tests? Can you measure the personal satisfaction a girl feels in knowing her dress is well designed and becoming? If you test the girl on her understanding of the principles of design which have made her dress becoming, the understanding of art may be limited to material objectives. If you judge a person's art knowledge by the art product he has turned out, you are ignoring the growth, or lack or growth, he has attained by producing the art object. If the idea of evaluation is widened from the concept of formal testing to embrace a constant appraisal of progress and growth, then it has much meaning for the art teacher as well as for the art pupil.

Evaluation permeates each activity to its conclusion. The pupil looks at his own growth in understanding and in power of expression. He reviews discoveries and their meanings and looks with appreciation at works of art in the light of his own experiences.

The Commission on Secondary School Curriculum has published a report of the Committee on the Function of Art in General Education with a distinguished section on evaluation.

The following summary is based upon the points the Commission set up for improved evaluation of art in the schools:

A. Evaluation of the teacher's approach to his work

   1. Is personality development adequately recognized by the teacher?

   2. Is the teacher alert to changing community life and ideas and able to recognize and bring forth creativeness from the pupil?

   3. Does the teacher judge pupils by standards suited to their age and stage of emotional development or by adult standards?

   4. Does the teacher limit himself to teaching art elements and principles in the classroom or does he relate art experience to the daily life of the pupil?

B. Evaluation of significance of art experiences for the student

1. Is the value of the work taught judged by pupil growth or by quality of the art product?

2. Is the pupil interested?

3. Does the art experience allow the pupil to be original?

4. Will the pupil's interest be extended by the new experience?

5. Is the student learning to criticize his own work and accept criticism from others?

6. Does the material taught provide an opportunity for growth in sensitivity to art values?

7. Will the art experience increase the pupil's sensitivity to refinements of thought in other phases of life?

C. Effects of art experience on the daily life of the pupil

1. Has his use of leisure time improved?

2. Has art affected his daily life in any other way?

In conclusion, art activities have such complex and subtle human behavior relationships that they demand great understanding in evaluation. We are challenged to make a thorough and comprehensive study of values in terms of pupil growth.

THE ART TEACHER

In working toward his goals the art teacher seeks daily to bring each pupil appreciation, creative expression, and desirable social habits.

HE FINDS the fulfillment of his objectives in many ways, such as:

Resourceful, imaginative and alert response to the indigenous and spontaneous situations that offer unique opportunities for vital student expression

Personal enthusiasm in motivation, bringing forth student enthusiasm in desirable responses

Sympathetic and encouraging guidance, stimulating the student to work with his own problems

Relation of student art experiences to everyday living in terms of appreciation and understanding

HE CARRIES out his art program in many ways, such as:

Providing an art learning atmosphere. A resourceful background may be a silent but impressive teacher. Young people respond to a pleasant art room environment.

Demonstrating the use of art in helping young people find new interests; sponsoring the pupil's desire to own pleasing objects; encouraging individual and group collections.

Establishing the art room or art classes as a live source of appreciation

having exhibitions in the art room of things done in class

using the art of the students in the school building

having exhibitions showing the place of art in contemporary living

using wisely the relative encouragement values in posters for plays, designs for stage sets, and displays for hall showcases

In the elective art class the teacher's influence is keenly felt in the guidance of students. A sympathetic and encouraging interest in each pupil stimulates and challenges him to work with his own problems and solve them in a way suited to his needs. The teacher seeks to evaluate levels of artistic growth and to give effective guidance toward the next step. The gifted pupil learns how he may further both his general and his special interests.

TEACHING ART

The art teacher develops his plans to give attention to specific art learnings, appreciations, and levels of development. He relates the choice and the plan of each lesson to previous experiences and to projects that will follow. Assignments lead to creative learning when they are flexible and adjustable to the needs and capacities of individuals.

Motivation is important in art teaching; even continued lessons need active motivation. Young people bring their natural interests and pertinent hopes into a situation, but they often need the teacher's guidance to go effectively into the current problem.

Questioning is a vital part of art teaching. When a problem is introduced, the teacher leads the students toward understanding through skillful questioning. Gradually each member of the class sees the relationship to his individual needs, and thinks his way toward a personal solution. Key questions are planned in advance. They should be direct, and provocative of thought. Other questions then follow in the discussion and lead to understanding and enrichment in the student's planning.

Visual presentation has a vital place in the art learning process. When the learner considers color, he needs to see color. When he talks of texture he needs to see and feel textured surfaces. Much of the success of the art teacher is dependent upon his ability to help pupils visualize art meanings in a stimulating and provocative way. Effective use of visual materials in teaching will activate imaginative and personal ways of seeing, feeling, thinking, and planning.

Visual teaching aids are important to the art teacher. Through prints, slides, films, filmstrips, natural and man-made forms, and various materials, the teacher is able to expand the pupil's æsthetic awareness and add to the range of his appreciation.

Teacher and pupil demonstrations may be used to stimulate individual thinking and to encourage exploration of processes and materials. The helpful demonstration suggests a variety of ways to tackle a problem and invites personal solutions by individual pupils. Formula solutions should not be presented, as they discourage the creative process.

Guidance during the working period is a valuable aspect of art teaching. The teacher is better able to encourage a student when he is seen as an individual working to solve his own problem. A question, a suggestion for research, or any pertinent comment will go far in stimulating the pupil to creative thinking and self-evaluation.

Evaluation has a varied role in art learning. Self-evaluation for pupils enables them to determine for themselves the degree of effectiveness in achieving personal goals. Teacher-pupil evaluation considers the art learning in terms of the general problem; it also identifies the achievement in terms of broader fundamental understandings. Evaluation helps the pupils and the teacher discern essential qualities of achievement; it brings encouragement and satisfaction to the pupil. Frequently, evaluation moves the pupil directly into plans for a new project.

THE ART LABORATORY

A FUNCTIONAL ORGANIZATION of the art room is necessary if students and teachers are to work together comfortably and effectively; good habits in caring for materials are equally important. The physical make-up of art rooms varies, but each one should have the following:

functionally-organized and clearly-labeled supply and storage cabinets

a table specifically assigned for art materials to be used in current lessons

a place for the students' unfinished work

a place for the students' individual work folders

display space for two and three-dimensional work

GOOD ATTITUDES OF RESPONSIBILITY for equipment and materials, under the guidance of the teacher, help create an atmosphere conducive to creative thinking and problem solving. The care of equipment by students is important; procedures for storing and distributing materials are demonstrated along with various other pertinent information.

It is the teacher's responsibility to organize and to make available those materials necessary for a particular experience. Materials should be organized and set up in such a way that pupils may share them when necessary. Routines should be established for the distribution and care of these materials. Basic student routines include:

being attentive and ready to work when the bell rings

selecting and arranging work materials efficiently

cleaning up and replacing materials

putting art folder and projects in the proper assigned place

avoiding waste in the use of materials

keeping pertinent assignment information in a notebook

filing personal collections of helpful materials or using the art room files

developing a personal sketch book

SUGGESTED TIME SPAN OF UNITS BY WEEKS

FUNDAMENTALS OF ART	ART IN BUSINESS AND INDUSTRY	FINE ARTS: PAINTING PRINT MAKING, SCULPTURE
5 ELEMENTS AND PRINCIPLES	4 LETTERING	5 COMPOSITION
7 EXPERIENCES IN DESIGN	7 ADVERTISING	6 PAINTING
6 EXPERIENCES IN COMMERCIAL ART	4 ILLUSTRATION	6 MODELING
6 PEOPLE IN ART EXPRESSION	5 GRAPHICS	5 PRINT MAKING
5 DESIGNING AND MAKING OBJECTS	4 INDUSTRIAL DESIGN	4 CARVING
7 VARIED EXPERIENCES IN COMPOSITION	4 DISPLAY	4 CONSTRUCTION
	5 ARCHITECTURE	6 PAINTING
	3 STAGE CRAFT	

36 WEEKS

UNIT ONE ____ PICTORIAL COMPOSITION

What does composition mean in terms of painting? Matisse says, "Composition is the art of arranging in a decorative manner the diverse elements through which an artist expresses his feelings." Composition can also be explained as putting things together in a picture so that the visual and aesthetic elements are harmonious.

Effective composition is achieved through selection, omission, clarification, emphasis and organization, influenced by the creative spirit of the artist. There is a definite need for student awareness of composition as a vital part of all he creates. The ability to render objects exactly as they appear is not by itself the ultimate criteria for judgment in terms of accomplishment.

The AIMS of this unit are:

To understand the importance of pictorial composition

To investigate composition and its component parts

To develop an analytical attitude toward works of art

To appreciate the organization in the art work of others

To provide opportunity to develop techniques for improving organization of visual works

To implement knowledge in the production of student art work

The SCOPE of this unit involves the study of paintings in terms of composition: How the art forms are composed; the relative value of organization in the composition; how art elements are used by artists. Such analytic study aims to develop keen judgment in the student through his own work.

A series of experiences in pictorial organization and types of organization is provided to help the student learn the importance of the term composition.

This unit presents basic understandings that will be implemented in the units that follow. Therefore it is important that both student and teacher stress this initial step on the ladder in order to lay the proper foundation for greater satisfaction in future productions. Composition is a form of artistic discipline, and in the beginning the student must be made aware of this. There is no short-cut to achievement that is going to be of any lasting value.

I. APPROACHES ______ Choose one

A. Present reproductions of work produced by outstanding artists. Show the reproduction and then, by the use of chalkboard, diagram the composition, through simplification, using line to show movement. Present only the dominant elements of the composition. Some interesting examples of work to examine are: Luncheon of the Boating Party, Renoir; The Raft of the Medusa, Gericault; Still Life, 1890, Cezanne.

B. Diagram on the board three compositions using the same subject and in each vary the appearance by placement within the format. As subject matter, use objects such as cloth, bottles, fruit composed in a still life. Ask which composition appeals to the class and discuss why. Render the objects as equally as possible so that there will not be any question raised as to the equal treatment of the forms. Discuss the compositions from the standpoint of arrangement of the elements used, shape-space relationships, proportions of the objects, varieties of surface treatment.

C. Present a display of the subject showing the following stages: photograph of the subject; drawing of the subject, simplified; subject moved and simplified further; aerial view, more simplified; abstracted further and transparent treatment; subject almost gone; pure abstraction. Then ask the class what all these have in common. Various replies may be given but ultimately, through guidance, the class should come to the realization that they are all compositions. A suggested title is, What Do These Have in Common? After arriving at the understanding that they are all compositions, place the word Composition with the main title.

II. ACTIVITIES

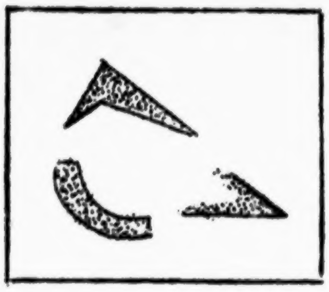
To the teacher: Present the following elements of composition in a demonstration lesson showing the implications and defining the terms. Then work into an activity that will emphasize the specific learning about composition.

A. Elements of Pictorial Composition

1. Develop an outline in your notebook to keep the following points for future reference.

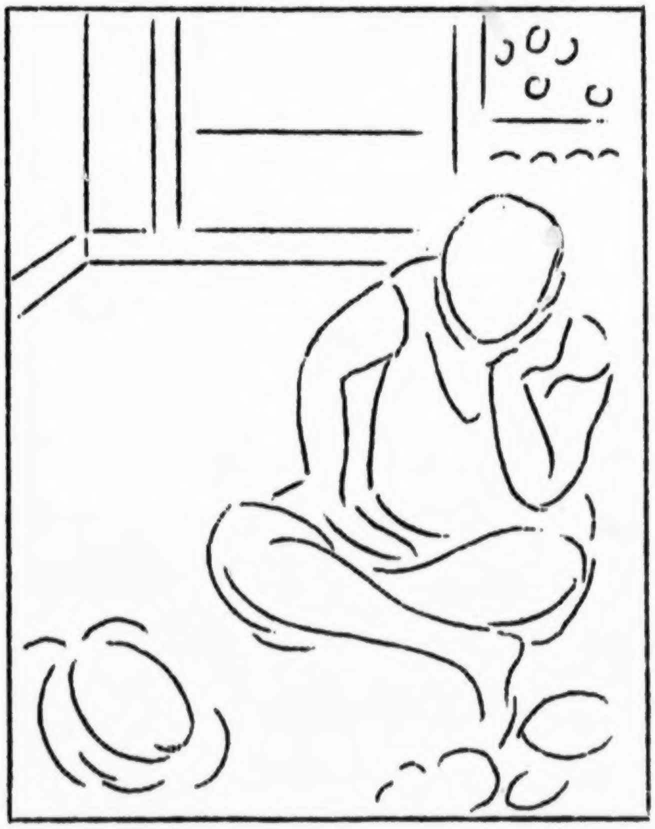
Format pertains to the particular shape and proportion of the picture area. The format should be established early since all lines, shapes, and directions will be influenced by it.

Subjective line refers to implied lines visually connected by the observer.

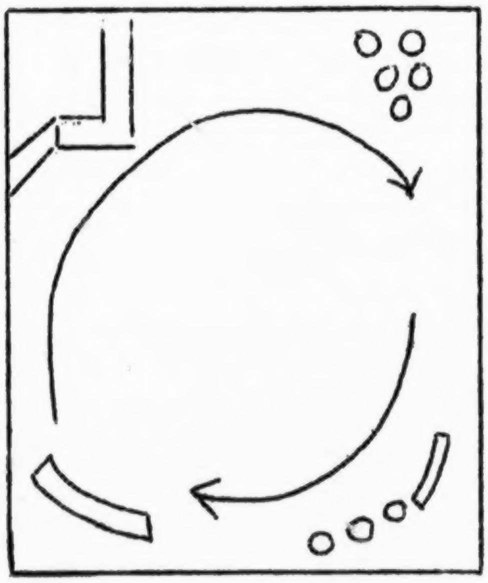


Corners are arrows which affect the composition.

The right angles of the format are natural arrows and any form, line, or direction is made increasingly important when identified with a corner. Corners create visual arrows. If these arrows are left without compensation, they produce focal points that may interfere with rhythmic organization.



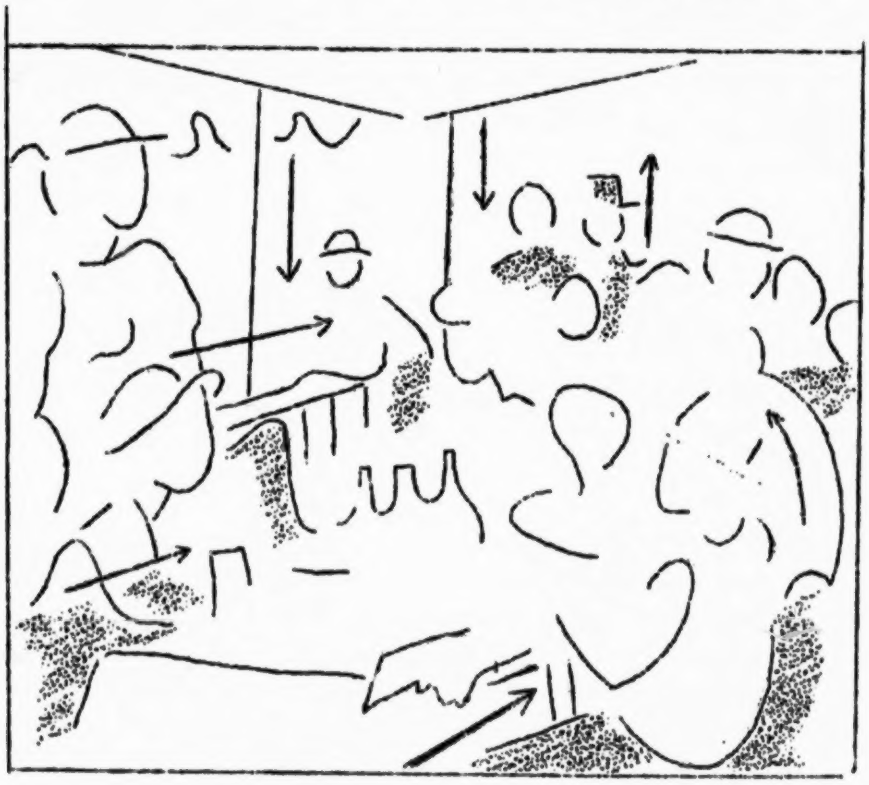
A simplified diagram indicating how Gauguin solved the corner problem.



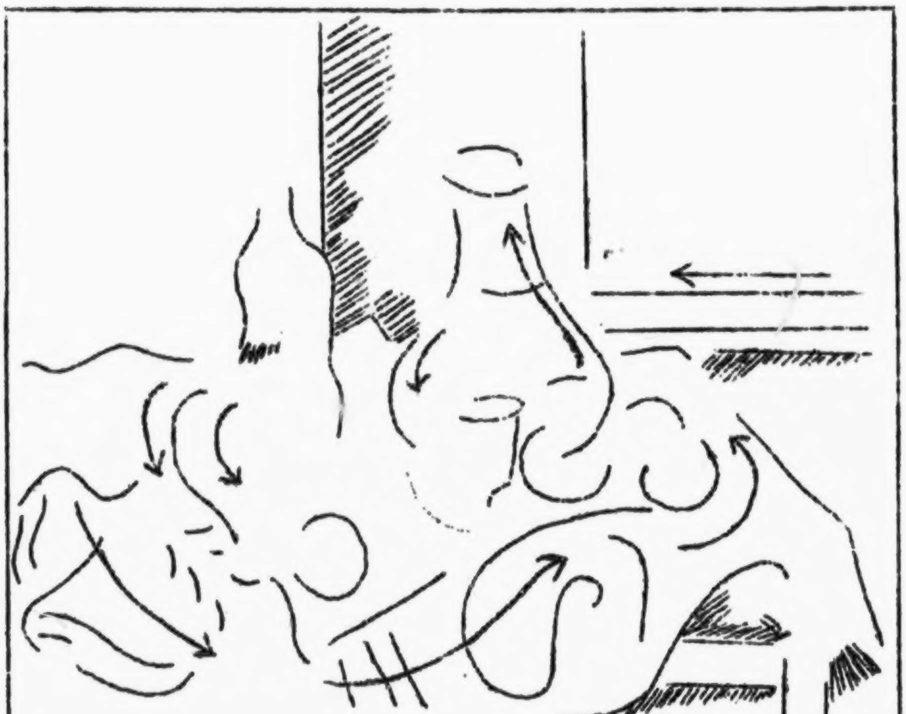
The abstract of corner devices used to aid movement.

To the teacher: Present through demonstration the composition Still Life, 1890, Cezanne, or Luncheon of the Boating Party, Renoir, and discuss the arrangement in terms of composition. The diagrams are inserted as an aid to the teacher.

SIMPLIFIED DIAGRAMS OF TWO COMPOSITIONS TO BE USED IN DISCUSSION



Luncheon of the Boating Party, Renoir



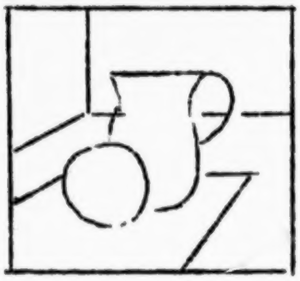
Still Life, 1890, Cezanne

To the teacher: The diagrams presented indicate the major forms used; the directional movement is shown by the use of arrows. Remember to show the reproduction and then diagram on the board.

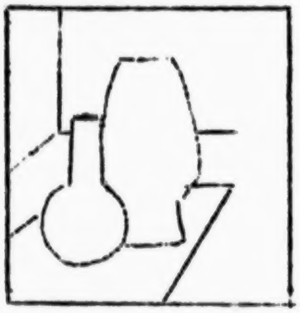
Order is an important requirement. The artist must create order out of disorder through selectivity and arrangement of the art objects to be used in the painting.

Picture plane is the flat surface to which various media are applied. This describes the plane through which the picture is seen, by which all other lines, and directions are established. The picture surface is also the basis for describing two-and three-dimensional space. In pictorial composition, planes are not always definite shapes, but can indicate felt directions.

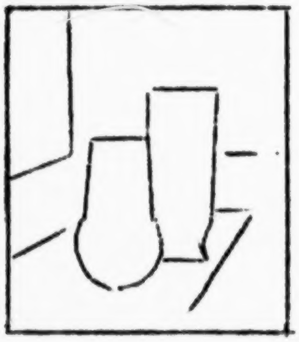
Space may be described as three kinds: planes that overlap in recession; equivocal space; confused space.



Planes overlap in recession.



Equivocal space is space that can be seen in two ways at the same time due to the dual nature of the contour of the objects.



Confused space is established by relative position of the bases but refuted by the overlapping of the upper part.

Pattern is a two-or three-dimensional quality that aids in conveying movement, depth, or surface treatment.

2. Create a composition that embodies the elements of pictorial composition. Use a stool or figure for subject. Keep in mind the simplification.

   a. Observe the qualities of the subject. Isolate characteristic parts. Combine and use these parts to make a composition. Exclude everything that is not a major characteristic of the object. Bring personal interpretation into the composition, such as taking liberties with the shape of the stool or figure. Sketch the subject from different angles.

   b. Use pencil in creating the composition; limit size to 8" x 12". Include a variety of lines, thick and thin, light and dark.

B. The Oriental Approach to Composition.

> To the teacher: Discuss with the students the elements of Japanese composition as presented below. An example of a diagram to bring out the Japanese approach is included.
>
> A major radical change in the concept of pictorial composition began to appear in European art about 1863. The change was attributed to the introduction in Europe of Japanese woodcut prints. Up until 1863 compositions were based upon eye-level perspective. The Japanese approach interested artists such as Lautrec, Manet, Degas, and Monet. Artists continue to experiment with this approach. Contrasting with the European method the Japanese artist likes to place himself above or below his subject; he exaggerates the importance of the foreground.

1. Develop an outline in your notebook to keep the following points on Japanese composition for further reference.

   Asymmetrical balance emphasizes off-center placement of the principal character or form.

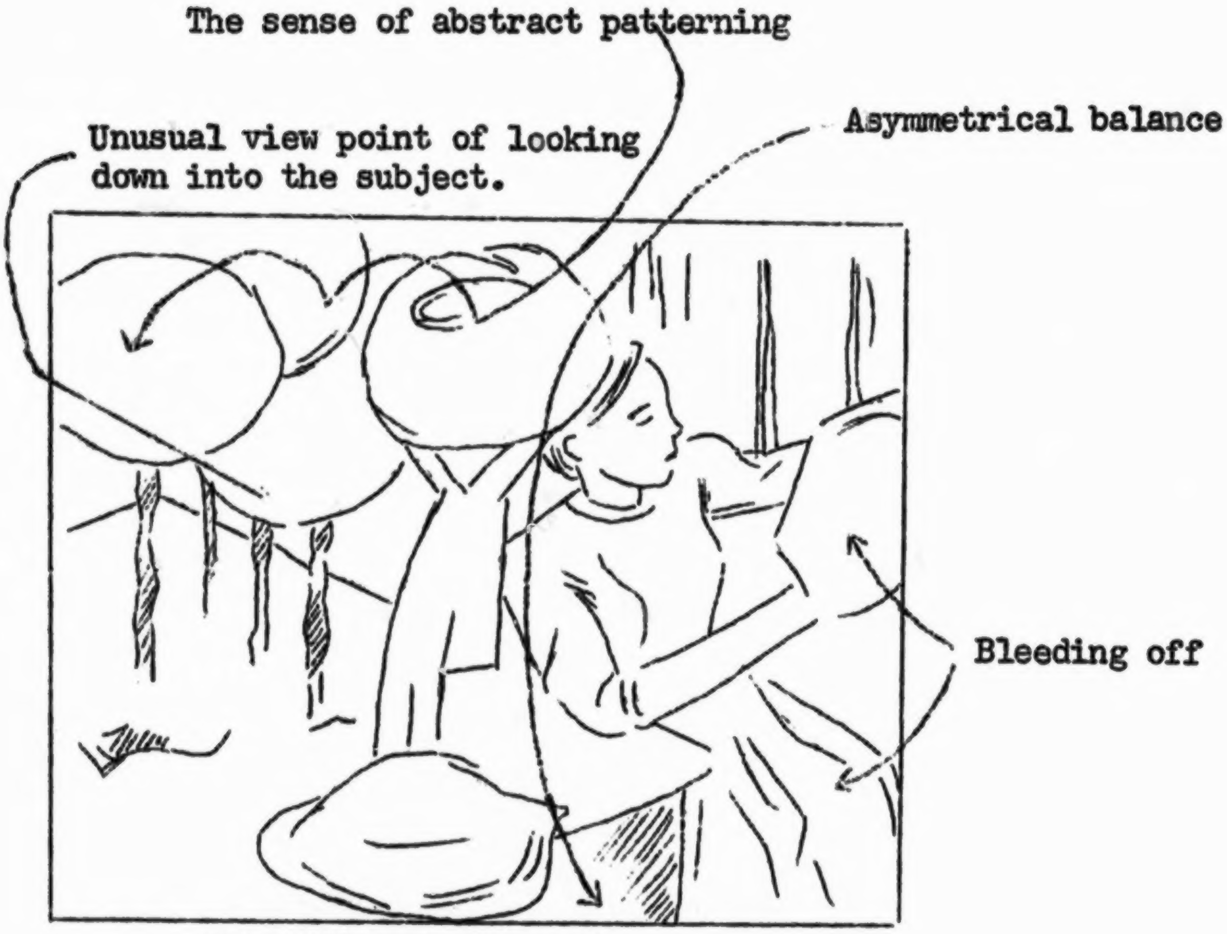
   Abstract patterning emphasizes the arrangement of the subject as a shape and space relationship.

   Unusual perspective comes from distorting the normal perspective in the vertical movement on the canvas.

   The unusual point of view is emphasized by presenting the subject from above or below a vantage point.

   Bleeding off the canvas for the major forms is brought about by cutting them at the canvas edge in the foreground.

DIAGRAMING A COMPOSITION


The sense of abstract patterning
Unusual view point of looking down into the subject.
Asymmetrical balance
Bleeding off

The Millinery Shop, Degas

2. Choose one of the approaches typical of Japanese painting and develop a composition. For subject use either a still life or a figure and still life.

   a. Develop three or four small sketches and analyze the composition.

   b. Refine a selected sketch.

   c. Develop the final composition in pastel, collage or pen and ink.

   d. Evaluate your work:

      Is the device obvious?
      Is the device well integrated?
      What is the value of the Japanese approach to composition?

C. Experiences in specific types of composition.

To the teacher: The following sequence should be presented using a teaching period, if possible, for each approach. These studies should be considered as experiences but not worked in terms of "finished art." Excellent resource books dealing with composition are: Composition in Pictures, by Ray Bethers; The New Art Education, by Ralph Pearson.

The compositions developed by the student should not be completed on the basis of only one preliminary arrangement. Two rearrangements are minimum. Subject in this study is not as important as arrangement and thinking.

1. Create small sketches emphasizing the particular qualities of each line approach. Use as subjects landscapes, seascapes, figures and still life. Make at least two sketches to bring out each of the following qualities:

verticals
horizontals
diagonals
triangles
ovals
oppositions
rhythms

a. First determine format. Make a small pencil sketch using line to indicate dominant placement areas. The sketch should be no larger than 3" x 4". Then make a sketch of the subject, using the line drawing as a guide for student placement.

b. Use the same approach for each of the seven qualities, with a variety of subjects and scenes. Evaluate the different formats.

D. Applying knowledge toward finished work.

1. Select a subject such as landscape, seascape, or still life, and create a final composition in a medium of your choice other than pencil or oil. Emphasize one particular line quality as outlined under B. Use size 18" x 24" paper. Consider mixing media in the composition.

2. Create a composition in which are used the basic elements, as you have studied them. Begin with a pencil sketch and develop the study using a combination of techniques: pencil and pastel, charcoal and pencil, charcoal and pastel. Use colored paper or a textured paper, size 18" x 24". You may consider doing two studies of the same subject, but with a different format, and then compare the two.

3. Select a subject for a composition and photograph it. Bring the photograph to class. From the photograph develop a series of four arrangements that are different in format, arrangement, and media treatment, but still related to the original photograph. Develop the series from a representational approach to near abstraction.

III. CRITIQUE

To the teacher: As a final test have the students analyze a reproduction of a painting. Each student should select an example, such as may be found in *Time*, *Newsweek*, *Life*, or in the post cards on sale at the Baltimore Museum of Art. The analysis for each should include four overlay drawings: one, to show dominant line; a second, major color distribution; a third, major shapes or forms; and four, movement.

The students need to prepare the overlays on tracing paper, each of the four drawings, identical in shape and size, so that each study can be placed on top of the others to study relationships more effectively.

Students may prepare brief written statements to explain the findings of their analysis.

As an alternate conclusion ask students to discuss unique compositions by master artists. Each student may bring a favorite painting to class to present in terms of its major composition emphasis.

IV. BIBLIOGRAPHY

A. Books

Bethers, Ray. *Composition In Pictures*. New York: Pitman Publishing Corp. 1949

Presents a wide range of material pertaining to basics of composition and contains good illustrations.

Pearson, Ralph, M. *The New Art Education*. New York: Harper and Brothers. Revised Ed. 1953

Presents basics in composition as related to two-dimensional and three-dimensional areas.

Harold, Margaret. *Prize Winning Oil Paintings and Why They Won The Prize*. Tennessee: Allied Pub., Inc. 1960

Analyses of paintings of contemporary artists with excellent illustrations.

B. Films

782 *Cubism*, color; 6 minutes

This film will help the student to understand how the artist bends subject matter to suit his will in creating a picture.

783 *Impressionism*, color; 7 minutes

Explains basic characteristics:
1. simplification of form 2. movement
3. illusion 4. decorative space

UNIT TWO ______________ PAINTING

Painting transcends the limitations of words and says much to those who will listen. Through the experience of painting young people can come to understand and appreciate some of the messages of painting. Paintings can be statements of timelessness; something with which to identify and from which to draw inspiration and pleasure, whether viewed in the home, the community or from the pages of a book or magazine.

It is quite possible that through the experience of painting some students will be encouraged to aspire to enduring roles as painters. There will be many more who will have been encouraged to take time to reflect, to experience the orderly processes of thinking that result in painting, and to fulfill the expressive purposes of painting.

The AIMS of this unit are:

To encourage the students to develop an appreciation of painting in relation to human needs

To develop in the student an awareness of the order in creative processes

To encourage the students to experiment with the tools and techniques of painting

To encourage the students to develop tolerance and understanding for all forms of painting

The SCOPE of this unit is designed to bring insights about painting to the student in three broad areas: the subject matter; the materials; the techniques.

The student will explore the potentialities for "seeing" in terms of still life, portraits, genre, and abstract paintings. He will have opportunity to learn to use sketching as a tool for thinking. He will learn ways to think about his painting before he begins and also while he works. He will learn how to analyze the problems of procedure, so that he can move forward in using a selected medium for his own purposes of statement. He may select from pastel, tempera, water color, collage, and oil.

Knowledge of materials in relation to each type of pigment will be developed in this study. Good painting habits, and the proper care and economy of materials will be stressed. Sequences of picture building will be explored.

I. APPROACHES Choose one

A. Plan with your students a visit to the studio of a painter notable for portraits, people, and still life. Discuss the painter's methods, tools and techniques, his attitude and philosophy.

B. View one of the films listed under Illustration in the art films catalog for Baltimore County. Of particular interest is Drawing a Portrait, O'Hara, color (10 minutes) and Drawing with a Pencil, black and white (11 minutes). Discuss the film in terms of the steps involved in the demonstration.

C. Set out on the demonstration table a number of assorted items, such as bottles, crockery, pieces of silver or metal, various fabrics, flowers and greens. Provide a shadow box and invite students to take turns in arranging a still-life group. Have the class evaluate each composition in terms of general interest, compatability of objects, variety of shapes, sizes, colors, and textures.

D. Arrange a still life set up. In addition, display completed paintings of the still life. These pictures may be made by you, the teacher: one in water color; one in pastel; one in oil; one in collage. Allow time for the students to respond to the variations in method. Pictures should lend themselves to clear analysis of procedure. Demonstrate the procedure from the sketch to preliminary painting. Have students make quick pencil sketches of the still-life arrangement.

E. Display reproductions of four or five painted portraits. They should be large prints and representative of several significant periods in the history of art. Examples: a Rembrandt portrait, a Sargent portrait, a Picasso, and one of the portraits of the contemporary Rene Bouche. Discuss the painter's use of light and shade, color, and degree of representation. Discuss the essence of a portrait. Should it be an exact copy of a face and head, or the image of a character, spirit, or personality?

F. Arrange a display of figure paintings ranging from the works of Michelangelo to those of Reginald Marsh and the contemporary illustrator, Ben Stahl. Discuss rhythm, movement, proportion, and form in the paintings. Consider the character, style and method of representing figures by these artists.

II. ACTIVITIES

A. Still Life

1. Representational experiences

    a. Think of a subject or an idea and let it be a theme on which to build a still-life arrangement. Do you have an interest in hunting, fishing, movies, theater, games, collecting? Gather together some objects that are pertinent to the idea. The idea may be stamp collecting and the objects might include album, loose pages, various stamps, tweezers, and magnifying glass. Choose a background. It may be a drapery of material, a small piece of bamboo shading or a small table-top folding screen. Make a shadow box by cutting away two sides and the top of a corrugated cardboard carton. Arrange the items against the background you have selected, in the shadow box, and evaluate them. Is there a center of interest? Is there a variety of sizes and shapes of objects? Is there color balance? Do the objects belong together?

    b. Make a quick drawing in simple outlines of the still life using soft pencil and newsprint. How do the proportions in your drawing relate to those in the actual arrangement? Does your drawing fill the paper? Have you concentrated on the central idea and left out corners of the shadow box? Make corrections, strengthen the final drawing and display it with others in your room, to see how many individual solutions are possible.

    c. Make a charcoal drawing on large paper, using broad, free strokes. Benefit from the experience of your smaller pencil sketch in blocking in the parts of the still life. Half close your eyes and study your subject. You should see the separation of dark areas and light areas. Turn your charcoal broad-side and shade, playing dark areas against light areas. Use kneaded eraser and kleenex as aids in picking out highlights and cleaning up edges. Note the textures to be represented in your still life; smooth surfaces, rough and soft. Evaluate in terms of tone balance. Is your picture generally dark or light?

d. Make a pastel painting of your subject. Select a neutral color and lightly sketch in the parts of the still life. It is important to get the paper covered with color early in the development. Doing this should enable you to see color and tone relationships quickly. As you work, your colors should become deep, rich, and opaque. Do a minimum of rubbing or smudging to blend colors. Evaluate your painting in terms of the foregoing. Arrange a display of the paintings for the classroom, school or community library.

2. Abstract experiences

a. Discuss some of the products of modern artists, particularly still-life painting. What is the reason for painting "limp clocks"? Why is a still life represented by flat two-dimensional transparent or translucent shapes? How did the painter create an aura of haziness and indefinite shape in a vase of flowers? Why?

b. Imagine yourself a painter trying to record images in a way that transcends our world of three-dimensional, concrete objects. He sees as in a dream, shapes that lose form and become liquid. He sees everchanging colors. He has a total impression to convey, rather than one made up of particular and detailed items. Establish a theme in still life and build a painting. The method of working is the same as in the earlier activities. Only the idea has changed. You wish to abstract and symbolize meaning. Was the experience satisfying? Did it stimulate you to use research to find out about this form of picture making? Could you live with a picture of this type?

B. People

1. Figure Drawing

a. Make a number of pencil sketches of the standing figure in different poses. Allow no more than five minutes for each pose. Check your drawings for proportion, and the relationship of the parts of the figure to each other. Is the action line of the figure apparent?

b. Select large drawing paper and hold it in a horizontal position so that you can move across the paper from left to right making several drawings. Work with free strokes building up from the stick figure. Have your model stand with his weight on one foot. What has happened to the shoulder line and the direction of the hips? Check the positions of the hands. For the next pose the model will shift his weight to the other foot.

c. At this point some discussion of the basic visual characteristics of the figure should take place. Generally speaking, how does the width of a man's shoulders compare to the width of a women's? Where does the greatest breadth occur on the man's figure? On the woman's figure? What is the relative size of the head of a child to other parts of his figure?

> To the teacher: Other questions may be considered in light of the teacher's experience and the maturity level of the class. Keep the questioning general and keep it relative. Ask only what is necessary to bring about understanding for good drawing.

d. Have two or more models before the class. Let them move about and then stand still. They may hold the action poses from three to five minutes. On large manila paper make quick sketches, building up the figure and adding detail only as time allows. The important thing is the action. Are your drawings stiff, angular, or are they loose and free flowing? Have you proportioned the figure properly? Check the position of the head and hands. Is the weight evenly balanced or does the figure seem about to fall over? What can be done to correct the balance? Discuss the plum line. Save all drawings for display and evaluation.

e. With your drawings before you, plan a composition of no less than three figures. Do your sketches suggest athletes, dancers, shoppers walking past store windows, figures on a beach? Draw lightly, quickly, freely in pen and India ink on white drawing paper. Let your lines overlap. You are working for spirit and action in your drawing rather than for mechanical precision. As an introduction to the "feel" of water color, apply light water color washes to your completed pen and ink drawings. Wash on grey tones for shadows and wash over clear bright color in the composition where it is needed for interest. Let a few strokes say a lot. The need is to suggest rather than to explain in detail.

2. Portraits

a. Have two people sit before the class for the purpose of comparing individual facial characteristics. Make drawings in charcoal. How do the faces compare? Are the eyes large and widely spaced or small and close to the top of the nose? Are the eyebrows heavy or thin, light or dark? Is the mouth large and full, or small and thin lined? Do the corners of the mouth drop down or turn up? Does the chin have a pointed or square character? Display your work.

b. Look around the room. Try to catch your classmates in natural attitudes. Make a number of quick pencil sketches emphasizing the particular characteristics of your subject: small nose with large horn-rimmed glasses; freckles and very curly hair; very large eyes, with a mole on the chin. Transfer the best of the sketches to small paper and complete with free strokes of pen and ink. Accents may be made with brush and ink. Display your work for evaluation.

c. Make a portrait study of one of your classmates. Work very lightly in pencil on watercolor paper. Mix a neutral tone and make a brush drawing over your pencil lines. Let the drawing dry, and examine it for likeness. Apply watercolor washes working from light to dark. Be loose and free allowing white paper to show through in places for sparkle and freshness. Be careful that your painting does not become overworked. Evaluate in terms of likeness and drawing first, and quality of color washes next. Make corrections or additions and plan a display for the school library or art classroom.

C. Painting

1. Collage

a. Read to find out the use of collage. Acquaint yourself with some of the collage products of modern masters and contemporary painters. Try to find why the painters use paper for the total composition. Discover something of the motivation of the Dadaists and the Cubists. Learn something of the collage techniques of Bracque, Matisse, Picasso and other painters of your choice. Be objective in your observations. Search out the charm and beauty of shape and color, texture and pattern in terms of your own experience and in terms of the times and the reasons of the artist. What other materials may be used with paper to make a picture? What are some of the methods used for adhering the paper? What is the value of the adherent beyond simply holding the paper in place? What choice of papers may be used for collage. How much representation can be achieved in a collage? Need there be any representation at all?

b. Plan a picture for collage. Gather various papers, adherent, scissors and illustration board. All papers should be varied in color, pattern and texture: tissue paper, construction paper, wrapping paper, writing paper.

The adherent may be a thinned solution of commercially packaged poly-vinyl-acetate, Elmer's glue, clear lacquer, varnish, or clear shellac. Cut free shapes from the paper, and experiment with transparency and translucency to create depth and dimension. Your picture is built by the use of paper only. There should be no strengthening by a line or the use of any other material or medium. Evaluate in terms of color, texture, depth, and dimension.

c. For a second picture, use paper and adherent in conjunction with line and varied mediums. For this picture you may want to carry the eye through the composition by the use of a pen and ink or a brush and tempera line. Line will also help to define the form for which you may be working. Perhaps you will want to add further texture and interest by the application of fabrics such as linen, monk's cloth, burlap, silk, satin, velvet, bits of fur, angora, netting, beads, stone, sequins, string, rope, ribbon, pieces of metal, sand or grit.

> To the teacher: This part of the activity, however, should be kept in the frame of reference with Dada, and should not be allowed to warp the insight and sensitivity of the student. It may be done in the spirit of fun only.

Write a short paragraph, stating briefly the development of your picture. Arrange an exhibition of the collage work for the school or community.

2. Oil Painting

a. Make sketches for an oil painting to be done on canvas board. Use a still-life arrangement or select from your figure sketches. When your composition has been sketched, transfer it to the canvas board. Follow through with the tone development using charcoal. When your composition is balanced and you are satisfied, fix your drawing by spraying it with fixatif.

Make a list of helpful painting needs, some of them to be collected at home.

To the teacher: Materials to be included in the list are:

smock (old shirt or jacket)
cleaning rags
easel
palette
canvas boards (masonite)
brushes ($\frac{1}{2}$ dozen) -
    1 round red sable, size 6,
    1 each bright's bristle, size 1, 2, 3, 5 & 7
palette knife
palette cups, one for oil, one for turpentine
linseed oil
turpentine
colors-zinc white (large)
    cadmium yellow
    yellow ochre
    cadmium red, medium
    burnt sienna
    alizarin crimson
    viridian
    permanent blue
    ivory black

Set up your palette and arrange your painting equipment.

b. You are now working with an opaque medium. You will be able to move from dark tones to light tones. You will be able to paint out and paint in, to scratch out and repaint. You will be able to apply paint with your brush or with a palette knife. The paint may be built up in heavy, textured masses or it may be applied lightly, with a smooth texture.

c. Create something more than simply paint on canvas as you work. Strive for personal expression in the way you paint. It is quite easy to follow step-by-step procedures in applying paint, in setting up a palette, or in moving the brush over the surface. Look beyond these surface qualities of paint and technique. Say something of your feelings on the subject. React to the color and texture of the objects. Be subjective and paint your subject as you see and feel about it. If it means a camera-like precision in its rendering or something as intangible as a dream, then make it so. Select a frame for your painting and arrange an exhibition in the school.

III. CRITIQUE

To the teacher: The student may be provided with prints and asked to write a paragraph of criticism or analysis. His subjective answering can be quite revealing in terms of tolerance, receptiveness, and acceptance of painting in general, and perhaps non-representational painting in particular.

If the teacher has provided enough factual information in the form of lectures and slides, the class may be asked to identify particular works.

The class may be provided with a spoken idea such as "three o'clock on Sunday afternoon in July with a storm approaching" and be asked to make an illustration using quick sketches in pencil, charcoal, or pastel. This can measure ability to visualize a picture and the facility to create drawings of the familiar, as a result of practice.

We might ask ourselves if the students have become more tolerant in their attitude toward painting and painters. Are they receptive and open-minded? Have they gained some facility in performance? Do they seem to have a respect for their materials and an orderly way of working?

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Simple explanations for beginning painters.

UNIT THREE ______ MODELING ○ CASTING

Modeling is one of the processes for constructing forms in space, usually with a pliable medium. The nature of the experience offers great opportunities for freedom in expression. The student learns to arrange forms that are pleasing to the eye and to the touch. Since the artist makes many experiments in the process of modeling, he most often selects plastilene, wet clay, or wax, as a temporary medium. For more permanent results castings are made in plaster, which in turn is an intermediary for the still more permanent mediums such as bronze, copper, or stone.

The AIMS of the unit are:

To develop an understanding of composition in three-dimensions

To develop an understanding of the technical processes involved in modeling and casting

To give the student the opportunity to experiment, using various mediums of modeling and casting

To encourage the students to develop skills in the use of tools in modeling and casting

The SCOPE of this unit is broad, involving two distinct processes: modeling and casting. The sequence of activities begins logically with the development of basic concepts in modeling, through research, discussion, and activities. The next experiences involve solving some of the technical problems of modeling for casting, as well as building an armature, manipulating tools, and developing a completed work.

Since casting is a technically involved subject, the processes must be clearly explained through demonstration and discussion. In this unit, the processes for making waste molds and piece molds are suggested, but the teacher may prefer other methods of reproduction, based upon his experiences and preferences. Methods for finishing, or "coloring", the cast works are also suggested in the sequence.

Having experienced the basic processes, the students should be prepared to choose from a selection of more advanced problems. They should be encouraged to use their own research, collect the tools and materials, and plan this experience on an individual basis. Freedom to solve advanced problems independently should serve in challenging the students, and should stimulate originality.

I. APPROACHES Choose one

A. Assemble an assortment of objects that have interesting and varied shapes, such as bottles, jugs, vases, boxes, and balls. Place them on a table in groupings and encourage the students to discuss the arrangements in terms of proportion. Types of questions that might start interesting discussions are:

> Which grouping seems best in terms of proportion?
>
> Which grouping has an object that is obviously too big, or too small, for the best of the objects?
>
> How do we decide that an object, or a group of objects, has good proportions? Is it solely a visual judgment?

In conclusion, ask each student to write a brief paragraph evaluating an object, such as a milk bottle, a vase, or a box, in terms of proportion of its parts.

B. Ask the class to imagine that each, as an individual, has been commissioned by the United States Department of the Interior to design a statue of George Washington. Discuss some of the problems that each, as an artist, must resolve in the early stages of planning. Here are some questions that might provoke discussion.

> Where is the sculpture to be displayed? This involves consideration of the color and texture of the background, as well as the surrounding decor in terms of the period of architecture. How will these factors affect the artist's planning?
>
> To what extent is the artist bound to achieve a likeness? Will this factor affect the artist's selection of approach in terms of abstract or realistic treatment? Is it possible to achieve a realistic likeness of the model without sacrificing good design practices?

C. Show a film, such as *Clay in Action*, black and white (11 minutes), that gives a step-by-step view of an artist modeling a head or figure. Discuss the processes demonstrated, and encourage the students to make notes for future references. Point out that the method they have seen demonstrated was one way to solve a modeling problem. Encourage the students to use research to find out about other techniques, and report to the class. Discuss some of the terms that seem peculiar to modeling, such as armature, plastilene, shims, casting, and patina. Encourage the students to use research to define the terms, and put the definitions in their notebooks.

D. Take the students on a field trip to a local museum, to view some of the masterpieces of sculpture. If this is not possible, arrange a selection of prints on the bulletin board. In either case, try to be sure that the students see examples of Primitive, Egyptian, and Oriental sculpture, as well as works by such masters as Michelangelo, Donatello, Rodin, Degas, and some of the contemporary artists. Encourage a class discussion of these works in terms of design, suitability, technique, and medium. Here is a list of questions that might start the discussion.

> Which artists seemed to be especially concerned with illustrating human qualities that emphasize man's achievements?
>
> Which artists seemed to be especially concerned with illustrating spiritual qualities that emphasize intangible emotions and actions?
>
> Can you interpret the use of the elements and principles of design in each of these examples? For example, make diagrams that illustrate how the artist used line, direction, balance, rhythm, texture, and proportion to achieve a reaction.

II. ACTIVITIES

A. Modeling

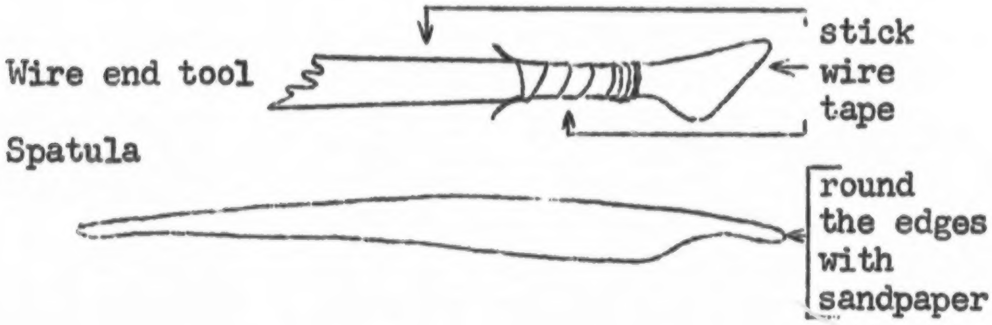
1. Developing basic concepts

   a. Discuss the difference between carving and modeling in terms of repose and action.

      Carving is restricted to the format, or shape of the block; therefore, a feeling of solidity exists before the artist begins to work. A block lends itself to expressions of tranquility or repose. Observe some Egyptian carving to evaluate this quality.

      Modeling is relatively free of restrictions, since you start with space and build to create your own format. Such freedom lends itself to expressions of movement and action. Study some modeling by Degas, for example to evaluate this quality.

b. Discuss some of the tools used in modeling. For example, list and make sketches in your notebook of such things as heavy and light wire-end tools, spatulas, and, though it needs no sketch, don't forget to include your thumb. That is one of the best tools.



To the teacher: As an activity, you may wish to encourage the students to make a simple wire-end tool, using a pencil or stick, and a spatula, perhaps using an ice cream stick.

c. Discuss the elements and principles of design that you should consider when composing a modeled piece of sculpture. List in your notebook and define these elements and principles as they pertain to sculpturing. Be sure to include such terms as line, proportion, balance, direction, rhythm, texture, and color.

To the teacher: This activity may be review for the students, but is important to emphasize in terms of developing an understanding of design in three-dimensions. It might be helpful to list these terms and definitions on the board.

Proportion: the relation of mass areas to one another and to space
Line: the contour or shape of volumes, or indicating the direction of the forms
Direction: the dominant movements and countermovements of the forms
Texture: the surface treatments that lend variety and value to the work
Color: the finished surface appearance, generally light or dark, and sometimes called the patina (actually a weathered or naturally oxidized finish)
Rhythm: the variations within all parts of the total composition
Balance: the distribution of weight in terms of the shape, location, and color of the forms

d. Using plastilene, develop a small sketch that expresses an action. For example, flight, speed, dancing, swirling, and galloping may suggest special kinds of treatments. View the modeling from all sides to be sure that it is pleasing in terms of total unity of design. Use your modeling tool for difficult passages and textural qualities. Encourage a class evaluation of the results, not only in terms of the elements and principles of design, but also to see how well each student achieved the effect of expressing an action.

2. Modeling for casting

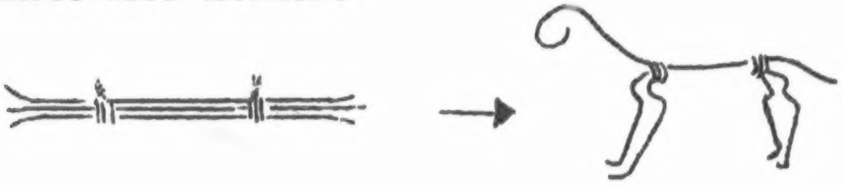
To the teacher: The sketches developed in the preceding exercise may be worthy of casting. However, since they were done freely, problems of undercuts and strength, and the small size, suggest the advisability of starting over.

a. Discuss the purpose for building an armature, and ways to make one. Make a list in your notebook of some of the materials, such as wire, pipe, screening, and wood blocks, that are suitable for use in building armatures. Discuss the difference between free-standing, or baseless, sculpturing, and sculpturing that is attached to a base. Use research to define the difference between the pedestal, the base, and the plinth.

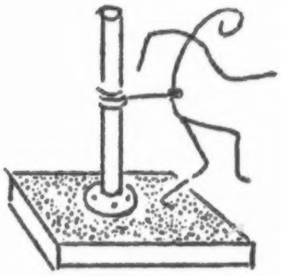
To the teacher: You may wish to make some diagrams on the board illustrating some of the types of armatures.

The sketches below are examples of the types frequently used.

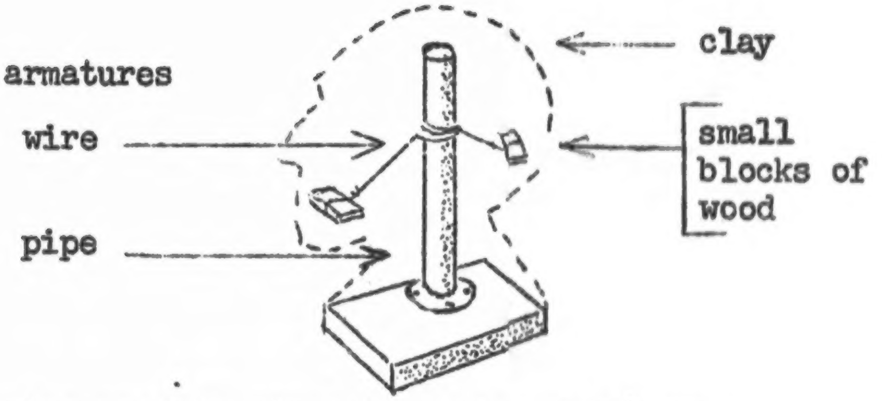
Three-wire armature



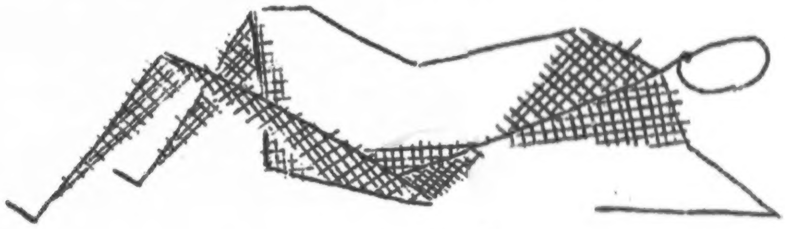
Pipe and wire for figures in action poses



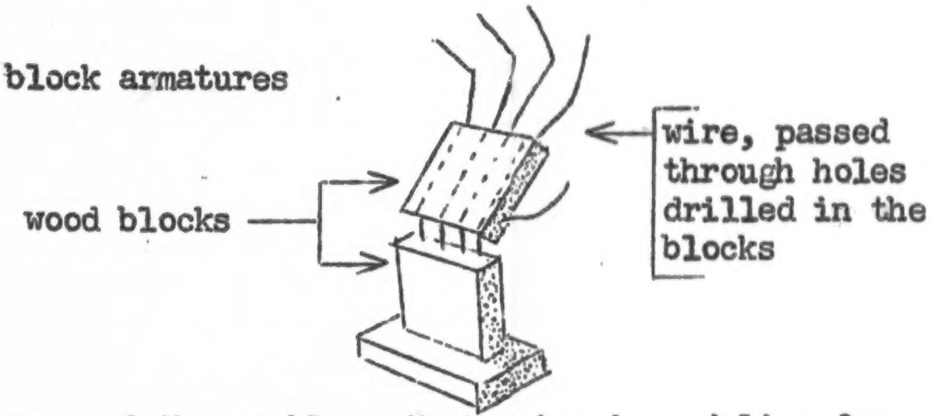
Head armatures



Screening used to strengthen wire armatures



Wood block armatures



b. Discuss some of the problems that arise in modeling for casting, such as undercuts and protruding parts. Choose a subject that you would like to model. It may be an abstraction, expressing an action or emotion, or the realistic modeling of a hand, a head, or a figure. In view of the limitations posed by time and materials, the size should be relatively small, perhaps with twelve inches as the longest dimension. Make some pencil sketches of your planned modeling, considering views from all sides.

c. Construct the type of armature that best suits your chosen subject. Apply the plastilene, or wet clay, on the armature, first in the form of sausage-like pieces, about the size of your thumb, freely twisting and pinching to get the general form desired. Next, press in small balls of the modeling material to round out, and fill in the forms. Finally, use the modeling tools, if desired, to cut away, suggest detail, or apply textural qualities. Remember to turn the modeling continually in order to consider the design from all sides. Evaluate your work in terms of casting. Are there too many undercuts? Are there fragile protrusions that are likely to break off in casting?

B. Casting

> To the teacher: Since there are several methods of casting, it will be difficult to cover them all in one unit. The sequence of activities here will include experiences with the waste mold and the piece mold. The more complicated processes, such as sand casting and gelatin molds, should be demonstrated according to the teacher's experience and preference. As a rule, a teacher needs a background of personal experiences to teach casting. Reference materials applying to the types, tools, and processes of casting are available and helpful resources for the student. One suggested reference is Sculpture, Principles and Practices, by Louis Slobodkin. The step-by-step procedures are clearly explained, both by text and illustrations.

1. Types of casting

    a. Use research to find out about, and discuss the reasons for selecting a piece mold or a waste mold to make a casting. How many reproductions will each type make? Which is preferable for casting ceramic pieces? Which is preferable if any undercuts are involved? Evaluate some prints of famous sculptured works, and see if you can determine the type of mold used.

    b. Decide upon the type of mold best suited to your modeling. With a pencil or carving tool, draw lines on your modeling that will indicate the divisions for the cast.

2. Tools and processes in casting

    a. Find out about and discuss the preparation of the modeling for casting. What are shims, and how and why are they used? What are key shims? Make a list in your notebook of the tools and apparatus you will need to make the cast. Include such things as mixing pans, knives, chisels, mallets, and spatulas. Discuss the purposes of each.

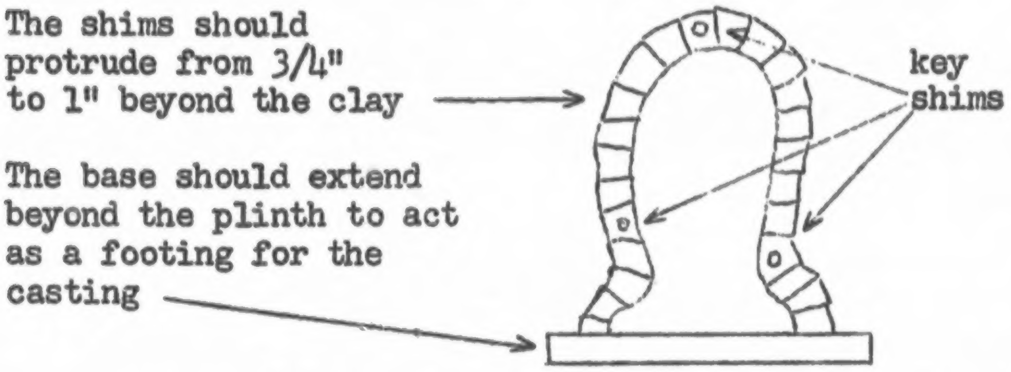
    b. Discuss the problems involved in mixing plaster

    > To the teacher: This will involve some demonstration by the teacher or a student who has had prior experience. At this time, explain procedures for caring for the appearance of the classroom, by spreading newspaper, and by having waste cartons, floor brushes, and other cleaning aids on hand.

What is the reaction when plaster and water are mixed? Why should you avoid adding plaster after the medium has been agitated? List the steps involved in the important process of plaster mixing in your notebook.

c. Prepare your modeling and cast it. Follow the outlined procedure presented here if you wish.

Make the shims out of very thin copper, brass, or tin, and place them as a wall in the clay to separate the sections of the mold. A waste mold will need only one division, while a piece mold will require as many sections as are needed in order that the mold can be removed without pulling or catching on an undercut.


The shims should protrude from 3/4" to 1" beyond the clay
The base should extend beyond the plinth to act as a footing for the casting
key shims

To the teacher: At this point, the teacher and the student will have to decide whether to make a piece mold or a waste mold. Each has advantages.

A waste mold is quicker, in that not more than two sections are involved, and minor undercuts are not a concern.

A piece mold may require more sections to allow for all undercuts, but is necessary if more than one reproduction is desired, as, for example, in the casting of ceramics.

Since there are some differences in the processes involved in a waste mold or a piece mold, choose one of the following sequences as it applies to your specific problem.

Waste mold process

Add a little liquid bluing to half a pan of water, before sifting in the plaster and agitating it to the consistency of cream. Use your hand to drip the blue plaster over the entire clay model, until it is about ¼" thick. Keep the surface rough, so that the next coating will adhere.

Mix a new batch of white plaster, and apply over the blue, slowly building up to 3/4" to 1" thickness. Do not cover the tops of the shims, allowing them to protrude about 1/8".

Add reinforcing metal bars, or rolled newspaper for small pieces, tying them to the mold with strips of cloth dipped in plaster. Allow the mold to stand over night.

Remove the shims with pliers, or tap gently around the seam with a chisel and mallet to separate the mold from the clay. Carefully remove any leftover clay with a modeling tool.

Apply several coats of green soap lather (any bar of brown soap will do) to the inside surface of the mold with a large soft brush, such as an old shaving brush. Continue soaping the mold until the surface is shiny. Finally, lightly oil the surface with a vegetable oil, or very light machine oil. Remember that too much oil will spoil the casting.

Put the two halves of the mold together with a wire, or large elastic bands such as pieces of inner tube. Seal the outer seams with clay.

Mix fresh plaster, and pour it into the mold; roll the mold around so that all surfaces are covered. Pour out the plaster, and repeat the process, until the inner coat is about 1" thick. While the plaster is still soft, wipe across the bottom with a flat board, to prepare an even base. Allow the mold to harden for at least two hours.

Chip the outer cast away. Use your mallet and chisel carefully, taking off just a little at a time. As soon as you see the blue plaster, you will know that you are very close to the finished casting, so proceed with even more care. At last, your cast piece will emerge.

Piece mold process (The processes for making a piece mold are very similar to a waste mold, and only the differences are pointed out here)

Start directly with white plaster, but apply it to just one section of the piece mold at a time; allow the plaster to harden before plastering the next section. Remove the shims as you complete each section, and lightly oil the plaster seam.

The total thickness of the mold should be about 1-½".

Allow the mold to harden over night. Clean, soap, and fill the mold as outlined for the waste mold.

When you have allowed the final pouring to harden, remove the casting by tapping gently along the seams, rather than by chipping the mold away as in the case of a waste mold. The outer mold will separate from the casting, and may be used over again.

3. Applying finishes to the plaster

   a. Patch with plaster any defects that may have occurred during the casting. This includes removing the seam lines, and covering scars made by accidental slips of the chipping tool. With fine sandpaper, smooth the surface of the cast, if you wish, before applying two or three coats of shellac. Between the coats of shellac, remove the shine with fine steel wool.

   b. Discuss ways of "coloring" the plaster casting. This is sometimes done in imitation of the more permanent mediums, such as terra cotta, bronze, copper, marble, stone, or silver. Experiment on scrap pieces of plaster to find an effect that is pleasing to you. Metallic paints applied and wiped off, watercolors, or wood stains are interesting mediums to use.

   c. After experimenting, choose one of the finishes and apply it to your casting. It is usually effective to wipe off the finish as you go, in order to achieve a softer tone. Wax applied over the finished piece will further soften the effect.

   d. Have a class evaluation of the finished castings in terms of design and craftsmanship. Arrange an exhibition in the school, so that others may enjoy your experiences.

C. Further experiences in modeling and casting

To the teacher: If time permits, encourage the students to delve further into modeling and casting. In the earlier experiences, they will have become acquainted with the tools and processes basic to more advanced activities; therefore, explanation and demonstration may be kept to the minimum.

1. Discuss some of the other processes of modeling or casting that you would like to experience, such as direct modeling, relief modeling and casting, or wax modeling.

2. Use research to find out about the process that you select. Collect and bring to class any unusual materials or tools that you will need.

3. Choose one of the following as an activity:

    a. Create a plaster sculpture, two to three feet tall, either as an abstraction or representational study. This will involve building an armature, and applying the plaster by dripping, brushing, or using a spatula. Paper and cloth dipped in plaster may be used to build the basic form on the armature. Carving may be involved in the finishing stages. Apply a finish that you feel achieves the most pleasing effect.

    b. Model a bas-relief that may be cast and used in the school. Subjects may be inspired by the Varsity Club, the Student Council, or the Student Court. Use research to find out about the processes of modeling, casting, and finishing. Sculpture, Principles and Practice, by Louis Slobodkin, pp. 170-176, is a helpful reference.

    c. Make a small wax modeling of an animal or figure in action. Use research as a means of finding out about the materials, tools, and processes involved. Sculpture Techniques in Clay, Wax, Slate, by Frank Eliscu, is a helpful reference.

III. CRITIQUE

To the teacher: There are several methods of evaluation, such as testing, discussion, and reports. Such testing should help to determine whether or not the students have developed the understandings and skills that were suggested by the aims of this unit. You may wish to encourage the students to choose one of the following activities to help them sum up their experiences in modeling and casting. These activities are directed to the student.

A. Use research to prepare a report to the class on the favorite mediums and techniques used by one of the master sculptors, such as Michelangelo, Rodin, Barye, or Degas.

B. Use research to find out about and prepare a report on the processes involved in sand casting, centrifugal casting, or in preparing a gelatin mold. Include drawings to be used as visual aids during your presentation.

C. Visit a local museum and write a report as a critical analysis of a contemporary modeling. Approach the subject in terms of the artist's feeling for his medium, and the use of the elements and principles of design. Use diagrams to emphasize the compositional arrangement.

D. Work at home to prepare a modeling of a portrait head. Use a friend or relative as a subject. Bring your finished product to class, and tell about the special problems that you had to solve.

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Ritchie, Andrew. Sculpture of the Twentieth Century. New York: Museum of Modern Art. 1958

An excellent selection of plates for study and evaluation of sculpturing styles and techniques.

Schaefer-Simmern, Henry. Sculpture in Europe Today. Berkeley, California: University of California Press. 1955

An excellent selection of plates illustrating contemporary trends in sculpturing.

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UNIT FOUR ______________ PRINT MAKING

Print making is more than a commercial process, a way of duplicating or copying a design. It is also a fine arts form in itself. It is an initial idea, conceived and completed in terms of a printing process.

Print making offers both discipline and adventure. Discipline is a necessity in producing the initial printing block or stencil. It utilizes all the requirements of good composition.

Adventure in print making comes to us in many ways. It is the pulling of the very first print, the repetition of the design, the addition of colors. Sometimes, adventure emerges with surprisingly good effects, as a result of printing vagaries. One learns to look twice at "mistakes."

The AIMS of the unit are:

To acquaint the student with the origins and background of print making

To expand the students' use of the basic elements of drawing... line, tone, and texture

To demonstrate the ability of the student to organize a composition using the print making medium

To encourage the student to develop increased knowledge of the techniques and potentials of print making

To encourage the student to develop awareness of print making as an art form in itself rather than as a process of reproduction

The SCOPE of the unit will emphasize three of the main categories of print making: relief, intaglio, and screen printing. Some processes included within these areas require the use of extensive and costly materials, or involve too large a block of time to be offered to students. This unit will, therefore, cover only the areas considered most practical for the majority of teachers and students.

The relief print making process will include linoleum and woodcuts. Intaglio printing will cover dry point and etching. Screen printing, or serigraphy, is primarily concerned with color, and will utilize the stencil and silk screen processes. Schools which have equipment for the planographic processes of monoprinting and lithography usually include them.

I. APPROACHES ______________________ Choose one

A. Arrange a bulletin board display of prints representing the major print making processes of relief, intaglio, planographic, and screen. Include works by Rembrandt, Durer, Whistler, Goya, Roualt, and Lautrec.

B. Arrange a display of student prints. Show the block, plate, or stencil from which each print was produced.

C. Present a demonstration of one printing process. Complete all the preliminary work ahead of time so that you may begin with the actual printing.

D. Have available for student examination, a collection of tools and materials used in print making. Include brayers, inks, press, gouges, screen materials, blocks of wood or linoleum, and etching plates.

II. ACTIVITIES

To the teacher: Most students will have had experiences with elementary techniques of printing. Transfer, string, brayer, monoprint, and other processes may be offered as initiatory activities if considered necessary.

A degree of skill in drawing and composition is a prerequisite to print making.

A. The Relief Print

1. Develop a cartoon illustration suitable for the school newspaper to try the basic techniques of relief print making.

    a. Study examples of black and white relief prints obtained from newspapers, books, magazines, or the teacher's file.

    What are the characteristics of a relief print? Can you tell which parts of the original block were cut away and which parts remained? How are the large printed areas handled? Are they plain or textured in tone? What kinds of tools might have been used to make the various cuts?

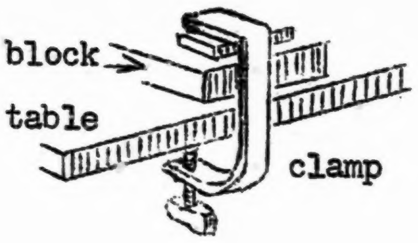
b. Plan and cut the block for your cartoon.

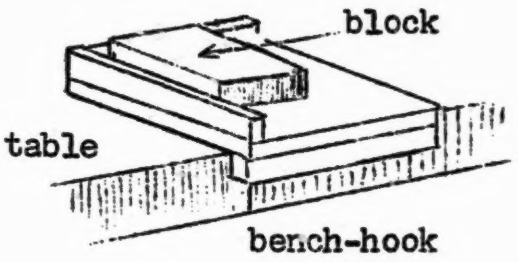
On drawing paper, sketch a cartoon illustrating a school event. Keep your drawing simple, making it conform to the column dimensions of the school newspaper. Show emphasis by using plain or textured areas of tone. Use tracing paper to refine your drawing.

Cut a piece of linoleum to fit your cartoon size. The linoleum may be glued to a block of plywood or other scrap wood with Duco cement.

Trace the cartoon, in reverse, on the linoleum. Select appropriate tools for cutting. The knife and gouge are basic.

The best method for holding the block while cutting is with a clamp or bench hook. Always cut away from yourself.





c. Print the block.

It is often wise to make preliminary prints at various stages of cutting the block. This gives some idea of how the work is progressing. The print may also indicate that alterations to the original idea are necessary.

Oil base or water base inks can be applied to the block with a brayer or pounce. Water base inks are preferable since turpentine or other solvents are not necessary for clean-up.

Experiment with different papers in your printing. Many artists prefer a rice paper. Dampening the papers will give a better print.

Pressure, rather than a large quantity of ink, is another secret of good printing.

Evaluate your cartoon, comparing the result with others from your class.

Arrange a display of the cartoons on the bulletin board in the class room or hall.

Present the best cartoons to the editorial staff for use in the school newspaper.

2. Develop a two-color design illustrating a literary subject and using the wood-block relief-printing technique.

   a. Study examples of wood-block-printed illustrations in books and magazines.

      There are many books and magazines, both from the past and present, which utilize the block print. The print may be a full page or spot illustration. Often an entire book cover, or jacket, is a block-printed design.

      How many tones and colors were used in the print? How many values? Are colors used as overlays? Which color was printed first? Second? Last? Which color predominates?

   b. Select the subject for illustration.

      The idea or subject may be based on a book or magazine story, play, or poem. It will be easier for you to be imaginative if you select material for which there is no existing illustration.

   c. Organize your design or composition in terms of two colors.

      Remember that the color of your printing paper must be considered in the composition. Select paper and printing colors to represent three values: light, medium, and dark. Generally the dark color will be dominant and is printed last.

   d. Select and cut the wood blocks.

      There are several ways of printing where more than one color is utilized. The first method requires the use of a separate block for each color. It is the most flexible method. The second method is to paint or ink both colors on the same block at the same time. The application of ink is more time consuming. The third method requires the printing of one color from the block, cleaning, cutting new areas into the same block, and printing the second color. This method does not permit a second round of printing.

Fruit woods are the traditional choice for wood block cuts. Many kinds, less costly and more easily obtained, are just as good. Pine is excellent. Even plywood may be used. Remember to let the wood grain work for you. It may even determine the composition. A word of caution...avoid trying to cut through knot holes. If it does not serve the composition as it is, get another block of wood.

e. Print the wood block.

Procedure here will be the same as in linoleum block printing. If you elect to apply both colors simultaneously to the same block, tempera, or even watercolors may serve better than inks. Add a drop of glycerine to tempera to slow the drying process.

f. Evaluate the print.

Arrange a display including the book or magazine selection on which the illustration is based.

B. The Intaglio Print

To the teacher: Intaglio is the opposite of the relief print. It results in the printing of incised lines rather than surface areas around the lines. A press is essential.

Dry point and etching are the forms of intaglio printing to be considered here. The related methods of engraving, mezzotints and aquatints may be considered for experimentation by advanced students if time and materials are available. Etching is usually done by advanced students.

1. Use the dry point technique to sketch a portrait or figure composition.

a. Experiment with the dry point printing process. Begin by cutting the plate.

Select a small zinc, plastic, or other soft metal plate no larger than three by five inches. Note: old photographic negatives may be substituted for the dry point plate. The printing process is the same but care must be taken to avoid cutting through the negative.

Practice sketching directly on the plate. If dry point needles are not available, use any sharp pointed instrument. Try a compass point, old dental tool, a metal scriber from the school shop, or tape a straight, steel pin to a pencil.

Hold the tool as you would a pencil. PULL it across the plate. A burr or rough edge will develop. Try combinations of lines for tone. Deeply cut lines will become very dark on the print, shallow cut lines very light. You can test the line quality by rubbing lamp black over the plate. As your composition develops, wash off the lamp black before printing.

Ink the plate with a pounce. Wipe away all excess ink from surface areas. Only the incised lines should retain the ink. Dampen paper before printing; if possible, twenty-four hours. Put plate in press; print. Notice the blurred lines of the print caused by the burr. This is characteristic of the dry point print.

b. Sketch and print a figure composition, or a portrait of yourself or a friend.

c. Mount the prints on contrasting color paper for evaluation.

2. Use the etching process to show a portrait study or figure composition.

> To the teacher: The procedure for etching is stated briefly. More detailed instructions may be found in these texts: Creative Teaching in Art by D'Amico; The Art of Teaching Art by Keiler.

a. Etch the plate.

Copper or zinc plates, covered with an acid resistant ground, are used in etching. The acid resisting coat is a wax preparation and is classified as a hard, or soft, ground.

The drawing is scratched through the ground but NOT INTO THE PLATE. Submerge the plate in a shallow bath of acid. The etching bath is a mixture of six parts water to one part nitric acid. Caution: Always add acid to water, not water to acid. The acid will eat into any exposed lines or areas.

The plate is washed in water, then with turpentine, after removal from the water bath. This removes first the acid and then the wax ground.

b. Print the plate.

Etching ink is applied with a roller or pounce. The plate should be wiped clean, leaving ink only within the incised lines. Unlike the dry point print, the lines of an etching will print sharp and clear, and ink lines on the print will be raised.

c. Mat the print.

Cut the mat to allow approximately one eighth to one quarter inch of space between the top and sides of the print and the mat. Allow a slightly larger space between the bottom edge of the print and mat.

The bottom space is used for signature and information about the print. Reading from left to right it appears as follows:

1/15 The Technique The Title The Artist

The figure 1 represents the number of the print in sequence as it was printed. The second figure, 15, represents the total number of prints produced.

d. Arrange an exhibit of your prints.

C. The Screen Print or Serigraph

To the teacher: Every student should experience the screen printing process by demonstration and participation. Serigraph is a term given to the artist-produced print.

There are several methods of working with screen printing, each requiring different materials. Three are presented here: the wax block out, the paper stencil, and the lacquer film methods. Choices in methods are encouraged.

A detailed analysis of processes, and construction of printing frames, will be found in Silk Screen Printing by Eisenberg and Kafka, and in Graphic Design by Baranski.

It is assumed that the student makes wood or cardboard printing frames, as needed, under the direction of the teacher.

Adequate facilities for drying the prints is a must. An overhead line with clips made of spring clothes pins is adequate.

1. Use wax crayon block-out method to show line and form in silk screen design.

    a. Draw directly on the screen with wax crayon. Use a non-objective approach. Draw freely. Vary the width of lines. Include some solid areas. Remember that the inks or paints will print only through the open mesh of the screen.

    b. Choose the printing medium.

    Oil printing inks or textile paints require special solvents. A satisfactory medium requiring less difficulty in cleaning up may be made with tempera and silk screen plasticizer. Mix equal parts of each.

    c. Print a test copy of the design.

    Print the design with one color on white paper. Evaluate in terms of line. Make changes by adding or washing out crayon with turpentine or other solvent.

    d. Print final copies of design.

    Print the design on various colors of paper. When papers are dry try re-printing them with different colors. Turn the paper so that the second design will not print exactly over the first design. Try translucent and opaque colors.

    Evaluate the second printing. Clean the screen.

2. Use the cut paper method to show line and form in silk screen design.

    a. Cut the design.

    Use any kind of paper. Cut out shapes or cut extra thick lines into the paper area. Be experimental.

    b. Attach design to the screen.

    Place negative or positive sections of the paper design under the screen. Print. The paper will block out parts of the screen, remaining fixed in position for future printing.

    Another way to attach the paper to the screen is to use a drop of glue to hold each part. Remember that special solvents may be necessary to remove the glue when finished.

c. Experiment with color.

Try printing one color over another. Use translucent and opaque color for variety.

Evaluate your print designs.
Did the colors bleed? What consistency of paint or ink worked best? What effect, if any, did the use of different screen materials such as silk, scrim, organdy, or tarleton have upon the tone of the color areas?

3. Use lacquer film to show line and form in silk screen design.

a. Cut the design.

The design may be cut freely into the film or may follow lines of a preliminary drawing. If the drawing is used, place the lacquer film directly over it. Be certain the film side of the lacquer paper is face up.

Using a sharp knife, cut lightly through the film. Do not cut into the wax paper backing. Remove the cut out pieces of film with the finger nail, or knife tip.

b. Attach the design to the silk screen.

Place the cut stencil, film side up, under the silk screen. Moisten the screen with adhering liquid on a damp cloth. Do not use much, just enough to attach film to the screen. Blot with a dry cloth. Note: some films may be water soluble. Remove the backing of wax paper and screen is ready for printing. If a film area was dissolved by mistake fill it in with nail polish.

c. Print the design.

Procedure for printing is the same as used with wax crayon or paper stencils.

Separate stencils may be used for each color printed when using lacquer film. Another approach with separate colors uses only one film but requires blocking out areas with paper. The paper is cut to fit the area desired and attached to the screen. Print the first color. When the blocked-out area is to be printed, a new paper block out is attached to the previously printed areas of the screen and the second color is printed. The screen must be cleaned after each color is used.

After printing, the stencil film may be removed from the screen with lacquer thinner on a cloth.

d. Evaluate your designs.

Are the lines sharp or ragged? How does the use of film compare with the use of wax crayon or cut paper as stencils in silk screen printing?

4. Develop a three-color picture or design in screen printing suitable for exhibition.

a. Sketch your ideas in chalk.

Choose your own subject matter. A partial list for consideration includes landscape, seascape, street scene, still life, figure composition.

If your approach is non-objective, consider the mood created by shapes and colors. Will the design express its mood to the viewer as well as to you?

The project may result in a matted print, greeting cards, or a panel for use in the home or school.

b. Transfer your ideas to the screen.

Choose cut paper, wax crayon or lacquer film to block out areas. Generally a separate printing is necessary for each color used. Use lower case letters. Try combinations.

c. Consider the color sequences in printing.

It is usually best to begin by printing the lightest color and work toward the darkest color. Leave most details of the composition for the final print.

d. Evaluate the results of your screen printing experience.

Does use of the screen encourage complexity in the design? What other materials might be used for blocking out the screen? What are the advantages in using a screen for printing? Disadvantages?

Arrange a display of your prints for exhibition outside of the classroom. Consider using the school library or cafeteria.

Where practical, arrange to exhibit your prints in the community. Consider local art exhibits, or stores in the shopping areas.

III. CRITIQUE

A valid approach to evaluation is in group or individual student-teacher discussion of projects testing the ability of the student to demonstrate his understanding of composition, terminology, processes, and appreciations.

The teacher may elect to evaluate the unit on the basis of the processes, testing on technique and terminology. This may be in the form of a written test or an evaluation of the culminating activity in each area under study.

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UNIT FIVE ________________ CARVING

Carving is a form of art expression which has had meaning for man from the beginning of history. It brings much satisfaction to modern man, as it did to the primitive carver. We find a magnetic quality in a museum display of carvings created by African or Eskimo tribes, and we are thrilled by modern sculpture in the same way. Why? Technique and aesthetics are inseparable in carving. When a person takes tools and materials in hand, he realizes an intangible feeling of identity that makes every move reasonable.

Carving offers much to the art student, in helping him grow as a sensitive and creative individual. There is a unique challenge to wrest from the block of stone or wood a personal statement that is creative.

The AIMS of this unit are:

To understand the different processes and mediums involved in carving

To foster an appreciation of carving as a means of expression

To visualize form and capture its essence in carving

To find enjoyment and satisfaction in creating a carved image

The SCOPE of this unit encompasses a study of carving. The student will study carved sculpture from primitive times to the present day. He will be encouraged to explore every piece of sculpture he can get his eyes on: Cambodian, African, Etruscan, Egyptian, Aztec, Roman, Romanesque, Greek, twentieth century--all kinds and sizes.

The student will be concerned with materials and tools, how different materials react to tools in carving a shape or form. He will work primarily with the basic direct method of carving: in terms of a soft stone block; in terms of carving in hard stone, such as slate or marble. He may work with carving a model which he has created in a plasteline sketch. This is sometimes called the caliper method because measurements are first taken on the small model and then transferred in proportion to the large model, with calipers.

The sequences of experiences will be adjusted to student interests and to available materials by encouraging a choice of project.

I. APPROACHES Choose one

A. Arrange a bulletin board showing reproductions of carving done in various periods of history. Include examples of the present century. Discuss the qualities of the carvings. The following questions will be pertinent for the discussion.

1. Is the carving made entirely of one material or are other materials incorporated?
2. What material did the sculptor use?
3. What was the purpose of the sculpture?
4. Are there unique qualities about the piece?
5. In what geographic location was the sculpture made?
6. Is the craftsmanship evident? Is so, how? How does the material and meaning affect the craftsmanship?
7. What tools do you think were used?

B. Show these two films: Totems, color (11 minutes) and The Loon's Necklace, color (11 minutes). Conduct a class discussion about the films paying particular attention to materials and tools, to composition, and to the objects themselves. The guide questions may be useful in this discussion.

C. Organize a display of materials and tools to familiarize the students with carving materials. The display should indicate how various tools are used. Have the students work with small samples of each material using the proper tools.

D. Arrange a class visit to the Baltimore Museum of Art to see the collection of primitive art. Point out the many examples of carved sculpture found in other sections of the gallery.

Make plans for each student to take notes and make a sketch of an outstanding example of carving. Ask each student to present an illustrated analysis of the piece he selected as outstanding.

A. Direct carving in soft stone; in the round

1. Begin with the block and the subject, for direct carving. If the idea comes first, get the block ready as quickly as possible; if you have a block, design in terms of it. One important reason is that the concept of the sculptured form is helped to grow by a feeling for the block and is identified with it.

   To the teacher: Establish with the students the possibilities in soft carving blocks which may include: a hand-mixed-and-cast block; native soapstone; cast plaster blocks; farm salt blocks; foamglass; soap. The steps in carving are easily adjusted to various materials. For practicality, this sequence describes carving from a hand-mixed-and-cast block. Materials are easily available, inexpensive, and permit a student to work on a fairly big scale, such as 1' x 1' x 2'.

   a. In the beginning, you need to decide for yourself if you wish to carve on a large or small scale. Find a sturdy carton to suit your taste in size. Reinforce, if needed.

   b. Mix the materials, as outlined and demonstrated by your teacher; cast the block.

      To the teacher: There are many variations of mixtures. The following has been tested and works well:

      zonolite - 4 parts
      (the more zonolite the softer)
      cement - 1 part
      plaster - 1 part, or less if desired
      water - to cover

      Measure the dry materials to match the carton in bulk, as they do not shrink or expand. Mix in a basin or tub, as needed; do not mix directly in the sink. Drain off any surplus water and pour the mixture into the carton to set for carving. One or two days suffice.

   c. While the block is setting begin to work out the idea in pencil sketches. Draw, in miniature, blocks that are the same proportion as the carving block: sides, front, back, top. Design the form you wish to carve with a sense of relationship to the block. When smaller sketches have helped you clarify the idea, try a bigger set of sketches on kraft paper or unprinted news. These will be your working sketches.

Study the work of sculptors to develop judgment and help you refine your design. For example, consider Michelangelo's advice to design a carved piece so that it can be rolled down a mountain unharmed.

2. Work out practical arrangements for carving. A heavy carton lid, big enough to hold the sculpture, will let the carving debris be emptied from time to time. An old paring knife with a sturdy handle will be the main tool, but you may want a file, some emery paper, and a six-penny nail on hand, too.

3. With chalk, sketch the design on all sides of the stone, fitting it into the shape. The stone block may lead you to some revisions, as you continue.

4. Begin to rough out the form. Work all around the stone. Roughing means cutting off the big unnecessary parts, so as to more nearly approach the shape of the main form. As you move from early roughing stages the sculptured form will emerge.

5. Consider the material as you work. If there is a deeply cut area in your design which you realize won't work with the soft block, modify the design. A fundamental rule in carving is: respect the limitations of the material. Don't struggle against it! Helpful points are:

    a. To bring in needed dark contrasts, carve one area at right angles to another, rather than cutting deep.

    b. To give full measure to the forms, actually shape them, going beyond surface relief lines.

    c. Look down at the piece from above; this revealing cross-section will let you feel the balance and the counter movements.

    d. Work for a sense of continuation in forms. A fold of drapery may fall over an arm and interrupt its line; it is important to feel the arm continuing underneath.

6. Carve all around the block; keep turning the form as you work. In terms of aesthetics, working the design as a whole keeps the parts properly related. In terms of practicality, working around the whole keeps you from cutting too much away from one part.

7. Complete the carved piece with finishing that seems appropriate. Remember that oversmoothing may destroy the strength of a piece. However, texture, especially variety and contrast in texture, may prove delightful. Use texture to solidify stone forms, and enliven the surface.

8. Arrange an exhibition of your sculptured pieces. Make pedestals to enhance the presentation. Evaluate the sculpture in terms of:

   Which pieces have simplicity and solidty?

   Which pieces are imaginative?

   Which pieces show a good feeling for the medium?

   Which pieces have well-related forms?

   Have you a favorite sculpture by a master? Give reasons for your choice.

B. Direct carving in stone; in relief

1. Select a slab of slate or similar material for carving. Search for the tools you need to supplement what your teacher can provide. Suggested materials include: slate ½" thick, chalk, scriber, rasps and rifflers, emery cloth, tooth chisels, hammer, hacksaw, clamps. An old screwdriver and chisel may be re-ground for substitutes.

   To the teacher: Slate is a very common material and may provide an intriging challenge for carving on the high school level. It may be found under the common name of flagstone and has a variety of colors: green, red, and black.

   The innate quality of the material generates excitement. As the work progresses this excitement is heightened by seeing the form gradually emerge from stone. The advantage in using slate is that it needs no further processing, such as casting, and is soft enough for carving. The disadvantage lies in haste, for a mistake can be fatal.

   An excellent reference for more detailed steps will be found in Frank Eliscu's book Sculpture Techniques.

2. Decide how you will begin to work. There are two approaches:

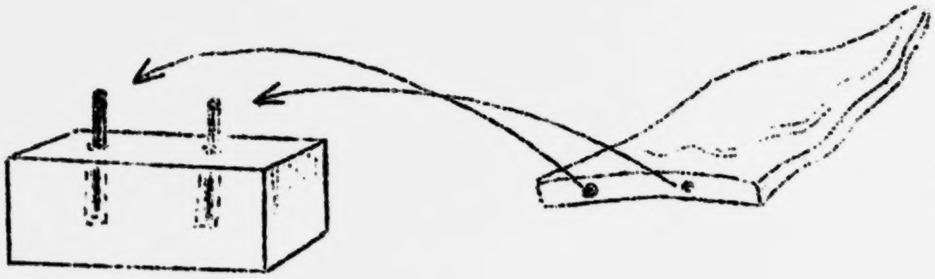
   a. Allow the particular shape of the slate to suggest the form that will emerge, and work directly in reaction to the slate.

   b. Predetermine the subject that will be carved through preliminary drawings; work from the selected sketch.

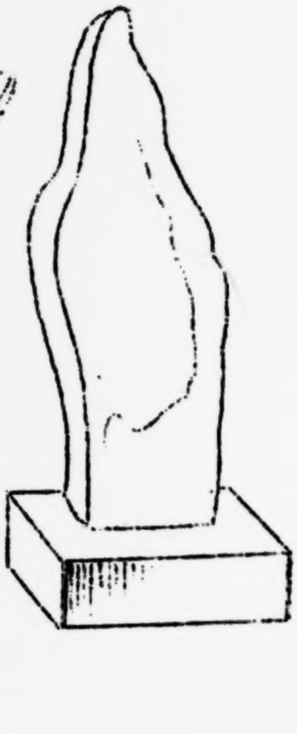
3. Proceed to develop your carving as follows:

   a. Outline the subject with sharpened chalk.
   b. Scratch the outline on the surface using a scribe.
   c. Using a riffler, emphasize the lines.
   d. Clamp the slate to a desk or bench and begin adding the textural accents to the background with tooth chisels.
   e. Chisel down areas not to appear raised; follow with the use of rasps.
   f. Use emery cloth to smooth surfaces for the final finish.
   g. Mount your sculpture on a block of wood by drilling holes into the base of the slate and block. Insert pins or dowels that will support the slate.
   h. Evaluate your work through class discussion of finished work in terms of design and craftsmanship. Present an exhibition of the work in one major show or, if you prefer, feature pieces throughout the school in such places as: library, office, main hall, or cafeteria. Through this approach of enrichment your work shall have more meaning for you as well as others.

MOUNTING YOUR SLATE SCULPTURE



In mounting your slate sculpture, be aware of the relationship of the base to the sculpture. Both pieces should be in harmony with each other. The base however should not detract from your sculpture.



c. Direct carving in wood

1. Begin with the block of wood. Carving in wood demands that masses be designed in relation to the nature of the wood, its shape, its grain. Work out the design with the block in mind. Some woods to consider are fruit woods, mahogany, oak, pine.

   Compare carving wood with carving stone.

   > Wood develops more quickly, but it has an alive quality. The artist is aware of the difference in vitality.
   >
   > Wood is more obviously and loosely grained than stone. The artist works with the grain both for aesthetic quality and for practical production. However the artist uses the grain, he is not enslaved by it.

   The design may begin with pencil sketches, but, as a rule, it is completed in clay, as a small model.

2. Draw the design on all sides of the wood. Wood is unpredictable, and the design will need to be adapted. Do not be swayed too much by accidental markings.

3. Check the tools available. The tools must be sharp and not chew the wood. Divide them into roughing and finishing tools.

   > Hold the tool at an angle close to the work.
   >
   > If the tool sinks in, pull it out straight; do not tease it out by wiggling it.
   >
   > Sharpen tools on carborundum, and then on Arkansas stone, with which you use lard oil. Tools must be constantly sharpened.

4. Begin by roughing out the form. While working, you may shellac the wood with a thin coat, for partial prevention of checking. Some woods will check no matter how well seasoned.

5. Continue carving until the sculptured form has been achieved. Checks can be repaired after the wood has become well acclimated. Fill the checks with scrapings and wedges of the same wood. Pour a little carpenter's glue on the bottom of the wood block. Scrape the wood under the pool of glue with a square chisel. Fill annoying checks with this wood paste.

6. Finish the carved wood piece with an appropriate surface treatment. Suggested finishes are listed.

   Ordinary floor wax is the most satisfactory finish for wood. Apply several coats until the desired luster is acquired.

   Wax over a thin coat of shellac.

   Oiling may be satisfactory, but oil darkens wood, and collects dust. The best oil is boiled linseed. Allow the wood to absorb as much as possible, and then rub thoroughly to remove all excessive oil. Let the oil dry twenty-four hours, before adding another coat, if desired for sheen.

   Use your own judgment about experimental finishes.

7. Arrange to display the sculpture to share your pleasure in the carving. The library or the principal's office may provide a place for you to emphasize it as an individual piece.

D. Carving from a plasteline model; in the round

1. Use research to find out about and then discuss methods of enlarging and reproducing sculpture. Discuss the use of tools, such as calipers. How did sculptors in other ages enlarge their work?

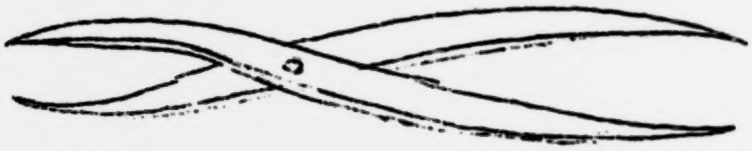
   To the teacher: A helpful reference for methods of enlarging is Sculpture, Principles and Practice, by Louis Slobodkin, pp. 177-202.

2. Discuss some of the practical problems before creating your model, such as size, final medium to be used, purpose and simplification. Decide upon a theme for your model. This may be an abstraction that represents a mood or emotion. If you wish, your model may be a representation of a figure, animal, or a symbolic design, such as an eagle or a dolphin.

3. Create a small model using about one pound of plasteline. View your modeling from all sides as you work to maintain unity of design.

4. Choose a wax paper container of suitable size, such as a quart milk container, that will encompass the volume of the form. Mix plaster and pour it into the container. When the plaster has hardened, remove the container from the block and you will be ready to carve.

5. Make a simple pair of calipers using two strips of wood approximately twelve inches long. Bolt together using a wing nut so that they may be easily adjusted.



6. Score the design in the different views corresponding to the sides of the block by using the calipers. Begin your carving with an old knife, tooling from all sides to rough in the form, making frequent references to the clay model with your calipers.

7. To add interest, parts of the form may be given surface textures by adding plaster with a spatula, or by scoring the surface with a tool such as a plaster rasp. The finished piece may be painted, stained, or sprayed for pleasing effects.

8. Wood bases and pedestals may be added to complete your design for display in the school showcase.

III. CRITIQUE

The student will evaluate his own art work, as he progresses from his initial idea to the completed carving. When it is complete, he will wish to present it carefully; he may select a background material which will enhance the display of his work. He should consider the color, texture and pattern of the paper, cloth, or other materials selected in relation to the carving. A single fold 12" x 18" paper will in some instances make an effective background for evaluation. The student evaluates his own work in terms of function.

For what purpose was the piece designed?

What kind of setting will help fulfill the purpose?

Further evaluation by the students, looking at all the work of the class, may be in terms of materials and tools. Questions may include:

What were the relative merits of the material selected for carving?

How did the material respond to the tools?

How did the material determine the form?

How did the use of light and shade effect the form?

In what way was surface decoration determined by the tools?

What factors determined your selection of stains, lacquers and other finishes?

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Excellent reference material for the study of contemporary sculpture.

Eliscu, Frank. Sculpture Techniques in Clay. Wax. Slate. New York: Chilton Company, Book Division, Publishers. 1959

An excellent reference for the slate sequence.

Keiler, Manfred L. The Art in Teaching Art. Lincoln, Nebraska: University of Nebraska Press. 1961

Has a section devoted to sculpture and carving.

Moholy-Nagy, L. Vision in Motion. Chicago: Paul Theobald and Company, Publishers. 1956

Has selection of plates illustrating contemporary trends in sculpture.

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Very helpful section on carving, clearly stated and illustrated for the student.

UNIT SIX ______________ CONSTRUCTION

Construction describes experiences in designing and building forms. Experiences in construction can develop awareness of the varied space and form relationships which comprise much of the beauty in our physical world. Work in structural design leads the student to appreciate the pleasing quality in basic forms, and the aesthetic quality of rhythmic movement, derived from the relationships of forms in space.

The student needs to become more sensitive to the interaction of open and closed forms in space. This interaction combined with line and plane movement may be used as interpretive structural design in various materials. Learnings in this field are pertinent to architecture and in sculpture.

The AIMS of this unit are:

To understand construction as a sculptural form and its influence in the field of architecture

To understand the effect of color and motion in a construction

To understand the different processes and mediums involved in construction

To develop skills in the use of tools as applied to construction

The SCOPE of this unit encompasses a study of forms in space and their interpretive use. A study of this kind of sculptural expression leads to examination of various mediums: wood, wire, paper, metal, glass, and scrap materials. The student is concerned with the question of how materials may be incorporated in constructions for personal expression of ideas. The student's experiences are planned to help him discover design possibilities for various basic forms and to challenge his creative interpretation in both static and mobile construction. He is encouraged to become inventive and sensitive to the use of materials in new ways.

The teacher should understand that the design of a construction may be helped by relating it to a room. A pleasing preview spot in the art room will encourage student creativity. The student should learn to work with a selection of carefully chosen, practical materials of suitable and attractive quality.

I. APPROACHES Choose one

A. Show the film Alexander Calder: Sculpture and Construction, color (10 minutes). Conduct a class discussion about the film, paying particular attention to the materials and tools, to composition, and to the objects themselves as they are shown in the film.

B. Arrange a display on the bulletin board showing examples of a variety of construction techniques. Develop a class discussion on each technique and its application in terms of materials.

C. Arrange a display of materials, tools, and finished products to familiarize the student with the scope of the unit. Discuss this display.

D. Initiate a class discussion of the word "construction". For emphasis, place a started construction before the class and let each student add something to it. This could be done with some material such as drinking straws.

E. Show the film Make a Mobile, color (11 minutes). This film is helpful in explaining the use of materials. Discuss the materials and the way in which they were used.

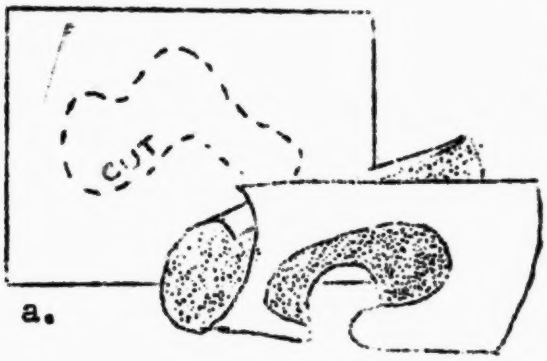
II. ACTIVITIES

To the teacher: The activities in the unit are developed to provide for student choice of a sequence. Through class discussion the student is helped to evaluate the four basic mediums and related projects before he chooses the one with which he will work.

A. Construction with paper

To the teacher: The following introduction to creating simple forms may be presented in one teaching period. A helpful reference is Creating With Paper, by Pauline Johnson.

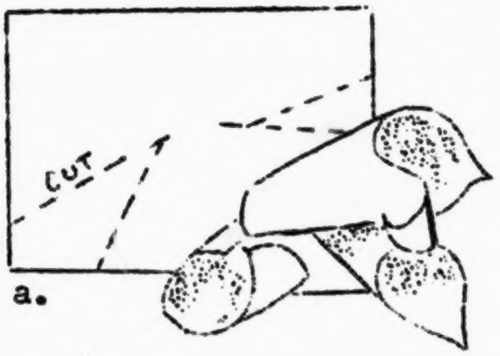
1. Experiment with paper sculpture. Use 9" x 12" construction paper and develop varied forms by folding, scoring, cutting, and curling. Suggestions follow:



a.

   a. Roll a sheet of paper, from which a section has been cut, into a "molded" form; staple or tape when a pleasing form is achieved.

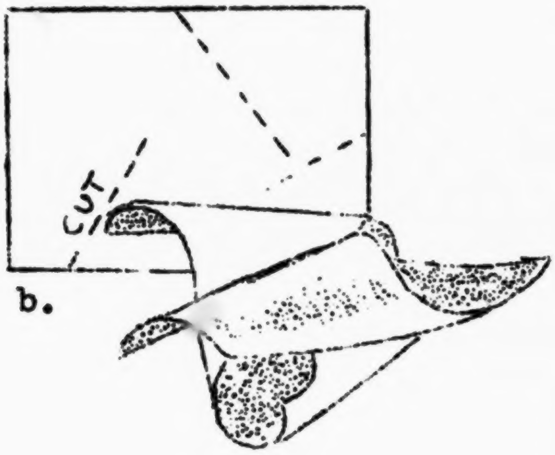
   b. Another way to begin a form is to cut in from the outer edge of the paper, keeping it all in one piece; then lift and roll the cut edges in different ways to create a variety of forms.



a.

   c. Cut, then score, and fold to expand a basic two-dimensional shape such as a circle or square, to create a three-dimensional form.

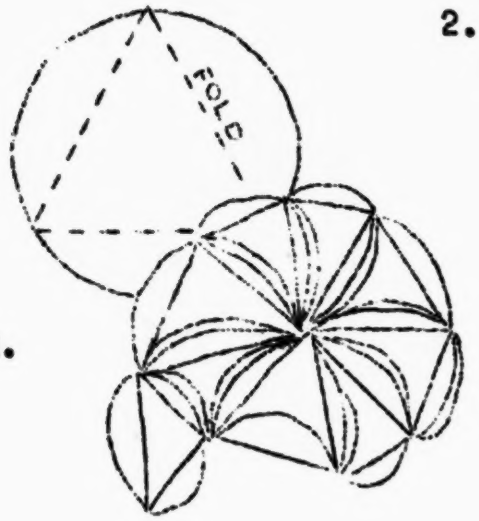
   d. Use two or more two-dimensional shapes of the same size and, by folding and fastening together, form a three-dimensional shape. This may be done with an interlocking slit method.



b.

   e. Experiment with strips of paper; loop, fold, bend, and curl to create a three-dimensional form.

2. Review the steps in making the four basic forms: pyramid, cylinder, plain and fluted cone. Make small test pieces to be sure you have the steps clearly in mind.



d.

3. Develop a real paper sculpture, working for a finished composition that will give artistic satisfaction. The main technical processes of cutting and scoring require a skillful touch and a direct approach. Choose an abstract or realistic subject. Plan to use it for display or decoration.

    a. Begin with a less expensive paper, such as cream manila, and cut, score, roll, and fold to develop a full-size working "sketch". Paper Sculpture, by Mary Grace Johnston, page 49, will help you visualize the possibilities in abstracting your paper-sculpture design.

    b. Develop the final paper sculpture in heavy drawing paper. Evaluate your piece, comparing its individuality with the work of others in your class.

        Did you interweave shapes in space?
        Did you use basic forms in new relationships?

B. Construction with wood

1. Experiment with scraps of wood to test tools and finishes.

    To the teacher: This activity gives the student a chance to develop skill in the use of the portable electric drill and the jigsaw. Demonstrate the use of these tools.

    If balsa wood is available, include the use of it in these experiments.

    a. Experiment with a selection of wooden blocks from the school shop, by stacking and combining in different ways. Make some quick sketches of your better combinations.

    b. Combine wood scraps with other wooden objects such as dowel rods, bamboo from shades, toothpicks, beads, tongue depressors, and natural woods such as bark or twigs. Arrange one combination and then another until you reach a harmonizing effect. Simplicity is a good quality to emphasize.

2. Choose one of the two following projects to develop in wood. Begin with small pencil sketches and select one to work out as an art form. Then collect the wood you will need.

   a. Develop an animal or figure that can be used as a child's toy. Fasten together with brads, glue, or by slots that interlock.

   b. Design a piece of playground equipment to be used for climbing. Use wood or metal rods, wooden shapes, cardboard cylinders, wire, and different types of string to develop an interesting piece. Make the model to scale. You may even place some small cut-paper or pipe-cleaner figures on it to bring out the scale.

3. Arrange a "spot" display to present your construction. Give it a name, as if for selling.

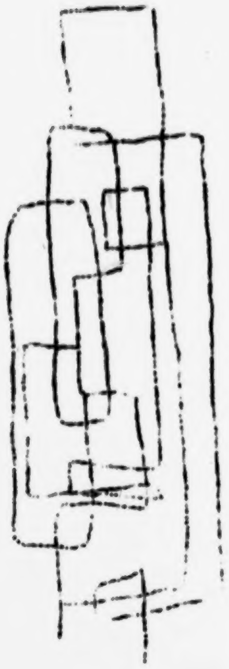
   If the toy promises to bring pleasure, be sure to give it to a child, perhaps in a hospital.

C. Construction with wire

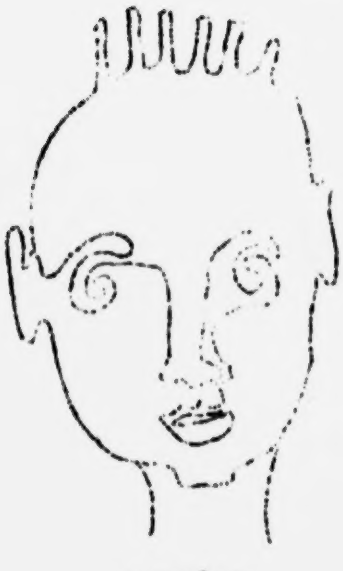
1. Experiment with wire to become acquainted with its potentiality for design. Collect various types and test for flexibility on a jig or in bending by hand.

   > To the teacher: Simple jigs can be made by putting dowel rods or nails of different sizes into wooden bases. The vise is good for right angle work. A piece of pipe could be used for circular work. A good reference for this is Fun With Wire, by Joseph Leeming.
   >
   > Demonstrate ways to handle wires. Include ways to use solder in the classroom.

2. Experiment with simple line designs with pencil on paper, keeping in mind how such line patterns may be developed in wire.



angular



curving

a. Experiment with a number of continuous line movements emphasizing right angles.

b. Experiment with drawing a continuous line to make a self portrait. Emphasize hair style and features, including glasses if worn. This approach may be described as contour drawing.

3. Design and develop a decorative construction using wires with imagination. Choose between a three-dimensional wire sculpture or a wire relief, as follows:

   a. Plan a composition for a wire sculpture or stabile to be used in a modern room. Develop the construction solidly; mount suitably on a wood base.

   b. Develop a wall decoration, possibly on the scale of a mural, creating a decorative pattern with wire on plywood or pegboard.

D. Construction with metal and various malleable materials

1. Experiment with scraps of metal and various materials to see how they can be shaped, decorated, and joined.

   To the teacher: Encourage the use of sheet metals such as copper, tin plate, brass, and aluminum along with wire mesh and screening. Chicken wire, tin cans, expanded and punched metals, strapping from crates, nuts and bolts, and aluminum foil may be utilized. It is possible to substitute plastics and plexiglas in place of the metal for some projects, if the teacher has a supply available.

   Discuss the use of materials in construction. Use slides and the opaque projector to show good examples of construction in contemporary sculpture.

Using a paper sculpture form as in sequence A of the activities, develop a design using a piece of sheet metal.

2. Choose one of these activities utilizing two or more of the materials with which you have been experimenting. You may wish to plan this as a decoration for a definite place in the school or at home.

   a. Design and make a mobile using a selection of these materials: wood, wire, glass, plastics or sheet metal. Keep in mind that mobiles are designs moving in space and the moving pattern they create is part of that design.

   b. Develop a construction with plexiglas, sheet metal, and nylon cord, that can hang from the ceiling but which has stable parts unlike those of a mobile.

      To the teacher: An excellent example is Gabo's construction in the Baltimore Museum of Art.

   c. Develop a piece of sculpture as an abstraction or as an animal form utilizing sheet metals, aluminum foil, wire mesh, expanded metals, and various metal rods. Study plates from Vision in Motion, by Moholy-Nagy to develop an awareness of "frozen motion". Study abstract countermovements. Apply this principle to realistic forms also. For instance, if a horse is rearing in one direction, his tail may be flying in another direction to counterbalance in the sculpture.

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Leeming, Joseph. Fun With Wire. New York: J. B. Lippincott Company. 1956

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UNIT SEVEN ____ LANDSCAPE PAINTING

Painting, no matter in what medium, has become one of man's most popular forms of visual expression. Perhaps this may be due to the almost unlimited interpretive language it offers. Regardless of his future plans the student will find an ability to reconstruct his thoughts in paint of great value. Probably he will discover that it is more important to express his thoughts than to worry over techniques. The instructor should urge a maximum of thoughtful experimentation during this journey into painting rather than a concentration on finish.

The AIMS of this unit are:

To develop an understanding of the problems of sketching and painting landscapes

To show the use and relationship of sketches to the finished painting

To develop in the student's thinking the relationship between realistic and abstract interpretations of subject matter

To develop the student's knowledges and skills in handling painting mediums and in selecting working methods

The SCOPE of this unit includes a study of the problems peculiar to the painting of land and sea. These include space, mood, light, simplification, and interpretation. Through the understanding thus gained, students may appreciate more fully the solution of these problems by the masters, both past and present.

Contemporary thinkers are seldom too concerned with what subject is chosen, or the particular technique of rendering it; but certainly very few would find fault with the importance of impressing upon the novice the need for sound basic beginnings. No matter how the final statement is made, initiatory sketches in which problems of arrangement, lighting, and subject selection are solved,are of prime importance. A full-size intermediate drawing may, or may not, be necessary; but such a drawing often will offer the opportunity to tighten up the final composition. Some artists prefer to make this step on the final support, and of course, such decisions are the prerogative of the individual.

As paintings evolve, the teacher should observe the techniques and practices being employed by the students. When methods generally considered unsound are used, it is time for some fundamental instruction--demonstration and discussion--to take place.

Equally important is the development of respect for one's materials. Paints were intended to be used as such, not as stone or clay. In other words, each medium has an intrinsic integrity which should be respected. Criticism has been aimed at some artists because of the lack of understanding they display in the use of their materials. It should be understood that objects rendered in paint function not as objects in nature but after all else is said, function only as paint.

Other than the correction of gross errors, teachers are admonished not to force their methods and philosophy upon the student. Instead, it would seem better to foster the individual's creative growth in terms of self-expression by maintaining a sympathetic point of view.

I. APPROACHES ______ Choose One

A. During the week preceding the introduction of this painting unit, place a variety of good landscape and seascape prints on the bulletin board. These may be selected from fine arts collections or include the work of Ted Kautzky or Millard Sheets which represents some of the best from the commercial world. If possible, choose prints which represent different mediums and label them accordingly. Have the students study these and, after time to formulate their thoughts, discuss their qualities. Instead of a discussion, you may have each student write a short paper analyzing the picture of his preference.

B. Discuss with the class some of the beautiful things they have seen in nature. Encourage them to recall scenes which left an impression on their memory, and to explain why they were impressed. Encourage a wide range of recollection so that the student who was enthralled by a busy, smokey harbor will speak as freely as one who found rolling, patterned hills exciting. Ask them what subject matter they are most interested in painting. "Subject matter makes the picture." Help them evaluate such a statement.

C. Examine with your class some of the techniques of applying paint which they employed during their previous experiences in painting. Such techniques might include painting knife, glazes, broad brush, impasto, mixed media, and many others. Direct the discussion toward the evaluation of methods from the standpoint of the appropriateness in a picture rather than the use of a technique merely for itself.

D. In advance of the unit, prepare a sequence of steps in the rendering of a finished painting. Place these on the bulletin board beginning with thumbnail sketches attractively mounted; include the final sketch and steps in rendering the final painting. This may be done by dividing the painting in four or five vertical areas and carrying out each area a little further than the preceding one. A completed final rendering may also be used. Discuss the evolution of a painting. Explain that this represents one method of working, that there are many approaches.

E. Select a suitable film or film strip on painting and present it to the class. Painters of Quebec, color, (18 minutes) is an excellent one for this purpose. After the presentation lead the class into a discussion of its important points. Evaluate the pictures and methods included. Emphasize that there are many approaches to painting; that each creative artist will eventually formulate his own philosophy of painting. The Encyclopaedia Britannica filmstrip series, Contemporary American Painting, offer fine examples of good painting for study.

II. ACTIVITIES

To the teacher: The activities in this unit are planned so as to carry the student through the developmental stages of picture creation. In each activity small sketches should be enlarged, improved, and finally rendered in whatever medium the student is investigating. It is impossible to include all of the knowledge and processes required to skillfully translate mental impressions into painted images. Much information that does not appear in these pages will have to be drawn from the teacher's storehouse of experiences. It is also true that time probably will not permit each student to work in all of the media discussed; therefore it is suggested that the student and the teacher make cooperative decisions as to the direction the individual student may take. It is recommended that student paintings not be carried to a high degree of finish. Instead, use more good beginnings and developments offering time for experimenting, not for polishing and finicky detail.

A. Sketching for landscapes and seascapes

1. Analyze the reasons for making sketches.

To the teacher: Sketches serve many individual needs. At this time, however, emphasize the use of sketches as a personal form of data collection and note taking. Help the student use sketches as a method of problem solving for composition.

Each student should maintain a sketch book and save his work. He should realize that his personal notes will always mean more to him than photographs or drawings by other artists.

a. Make a thumbnail sketch in pencil showing part of the art studio or some other area of the school. Include only as much detail as you feel necessary to identify the subject matter.

b. From your first sketch develop several more using a good range of values. Each sketch should be made for a different purpose. One may show structure, another the distribution of values and play of light over surfaces, and several others should illustrate rearrangement of subject matter to improve composition. Keep these sketches in your sketch book; you may need them in the future.

2. Explore sketching as a means of note taking.

a. Make a pencil sketch, about 9" x 12", of an object seen from your classroom window; or, if the view is uninteresting, make a sketch of a landscape from memory. Work lightly and do not attempt to record too much detail.

b. Study your sketch and determine its major lines of composition. Darken these lines. Look for patterns and interesting shapes. Could they be developed into a picture?

c. Make written notes on the sketch to help recall facts and impressions about color and value. Include directions for handling certain areas in the final painting if this will be helpful to you.

3. Use experiments with sketches for improving composition through rearranging subject matter.

> To the teacher: Selectivity is one of the artist's primary considerations no matter what his medium of expression. Creative thinkers often rapidly rough in their ideas for content and include every thought no matter how remote. The creative stage is followed by a period of reworking and refining until all superfluous items are removed. More work is improved by simplification through subtraction than by complication through multiplication.

a. Working from an actual scene, draw a small landscape sketch. Include each object in its proper place. Be as literal as you can.

b. Develop at least two sketches from the first in which you eliminate certain objects, or move them about, to improve your composition.

4. Explore the use of sketches for study.

> To the teacher: This may be another form of data gathering. However, sketches offer a means of solving problems in drawing and structure such as might occur in perspective, architectural details, and anatomy.

a. Go to several different areas of the school and make a number of small pencil sketches of objects which interest you. Include such material as doors, lighting fixtures, chairs, fire extinguishers, and even students in various positions. Draw with as much detail as you need for your work. Make notes of such details as how things are attached, their parts, and their placement.

b. Arrange some of the objects included in your sketches in a composition for a painting. Perhaps this is a good time for you to experiment with abstract compositions. Don't be satisfied with one arrangement, make several. Did you have to go back for more details? If so learn to see it all the first time.

5. Experiment with the abstract.

    a. Select one of your early sketches. Place a sheet of tracing paper over it and trace only the major lines. Select only that which is really vital to the composition.

    b. Place a second sheet of tracing paper over the first and develop abstract shapes from those lines you deemed important.

    c. Continue the development using more tracings if you need them. Keep the elements and principles of design in mind.

    d. Enlarge one of the tracings in charcoal using five or six values.

6. Investigate the use of color in sketching.

> To the teacher: Many artists feel that sketches should be organized in color if the final painting is to be in color. Experience has shown that the addition of color to a well-conceived black and white composition may alter the effect so drastically that the original conception is lost. As in all sketching, only the most important color notes are put down. Interpreting the forms of nature is more likely to result in good painting than is mere copying.

    a. Develop several small sketches of landscapes or seascapes in water color, pastel, or tempera. Make no preliminary drawing on your paper. Work rapidly trying to establish those important values and hues which suggest the feeling of space and form.

    b. Work up one of your sketches on 9" x 12" paper so that it takes on the feeling of a painting.

B. Exploring media used in landscape painting

> To the teacher: Landscapes may be rendered in any painting medium. It is probably true that as many techniques and approaches exist as there are artists. Some painters seek only to reproduce the scene before them in a literal way.

Other artists, however, prefer to translate the emotions resulting from a visual experience into a statement which is an expression of their reactions. That the appreciator may not comprehend the artist's statement seems of only slight consequence.

Realism offers certain painters a means of expressing moods, light qualities, beauty of natural forms, or making sociological statements. On the other hand, the nonrepresentational painter may find abstractions more suitable for his interpretation of spatial relationships, color relationships, or the expression of an emotional reaction to a wide variety of stimuli.

1. Explore the use of an enlarged drawing as an aid in developing a picture.

    a. On an 18" x 24" sheet of paper, enlarge one of your small sketches. Use charcoal, or perhaps black crayon. Remember that this drawing must eventually be translated into color. Perhaps it will help if you use your grays to symbolize colors. Such symbolism represents value more easily than hue or chroma.

    b. As you work, be conscious of the necessity for changes to improve your composition. As work is enlarged, the artist often finds it necessary to "tighten the composition."

2. Experiment with pastel for landscape rendering.

    a. On 18" x 24" paper lightly block in the major areas of your previous drawing. Vine charcoal is recommended since it generally will be absorbed by the pastel.

    b. In broad strokes lay in the most important areas of color. Pay particular attention to value and chroma relationships. Do not rub in your color.

    c. Work for a feeling of depth so the picture seems "to have plenty of air." Experiment with the effects of color over color.

d. On a second sheet of paper lightly block in the landscape again. Alter the arrangement if you wish.

e. Again lay in the major areas of color. Rub in the pastel with your finger or a small wad of paper towel. Think of this as base color. Select other colors which will contrast with the base colors and lay them in with light, broad strokes over the base colors. How do complements, and near complements, affect the color scheme? Does this treatment sparkle more than the first approach?

3. Investigate the uses of watercolor for landscape.

To the teacher: Because most students have worked with watercolor for a considerable time it seems unnecessary to say much about techniques. You should determine how much is needed according to your observation of each individual.

Students should learn that it is often helpful to select a palette of colors within the limitations of which a painting will be executed. Ted Kautzky's *Ways With Watercolors* offers superb examples of fine paintings rendered with very limited palettes. It may be well to demonstrate the procedure by selecting two palettes and rendering two quick sketches making clear the differences which may be expected in the end results.

The following palettes are suggested:

WARM	COOL
zinc yellow	zinc yellow
yellow ocher	yellow ocher
alizarin	cadmium red lt.
ultramarine	Prussian blue
burnt sienna	viridian
	burnt umber

a. Make a sketch of a city street in which the building fronts seem to act as a back drop. Make important use of foreground objects such as people, cars, street lights, and mail boxes.

b. Lightly enlarge the sketch with pencil or charcoal on water-color paper. Render the painting with a warm palette. Begin with broad, flat washes of color and establish the feeling of limited space. Remember to preserve your white highlights. The film, Painting Crowds of People, color (11 minutes) is helpful in demonstrating how to paint a crowd on the street.

c. Gradually add detail by using additional smaller washes and accents. This should also increase the color interest. Do you think this type of painting might lend itself to abstraction more easily than the pastoral type?

4. Use color to change the mood of a painting.

a. Consider your previous painting and the effect of its warm colors upon you. Did it have the friendly warmth of a bright spring day?

b. Make another rapid layout of your street scene on water-color paper. Select a palette of cool colors and plan to render the painting as a rainy evening using warm lights and cool building tones.

c. Have you ever noticed that figures against lighted store windows almost become silhouettes? Have you observed the fact that reflections of light on wet pavements are almost as bright as the lights themselves? Because in water color you cannot paint light colors over dark to achieve brightness, save out the light areas so that their proper colors may be preserved.

d. Observe that reflections do not follow the shadows. Reflections are inverted and are not on a surface, but are behind it. Reflections are an area of study in themselves. The film developed by Eliot O'Hara, Painting Reflections on Water, color, (11 minutes) is helpful in this study.

5. Explore the technique of collage for painting.

To the teacher: Collage is the assembling and cementing of materials of similar or varied textures on a two-dimensional surface. At times wide divergence has occurred so that springs, gears, and tools have been combined with woods, wire, and papers. Serious painters today seem more selective. Good taste suggests the use of more closely related materials.

Supports for collage are the artist's choice. Canvas may be used and has the advantage of "giving" with the painting materials. Masonite and homosote panels may be primed with white latex paint, or may be tinted, and offer an excellent support. While illustration board may be used, it has a tendency to warp badly in large paintings.

Papers, cork, and other materials may be torn or cut depending upon one's needs. Materials may be cemented to the support, or over one another, with PVA, spar varnish, or clear lacquer. PVA may be diluted with three parts of water. Spar varnish should be diluted with at least an equal part of turpentine. If not used sparingly, it may ooze out of the work and form a gummy mess. Varnish makes tissues very transparent but may tend to darken some papers because of its oil content. PVA will not alter the color as much as varnish.

Adhesives are usually applied with a stiff brush, both on the support and over the paper being used. The wrinkling of papers when PVA is used may be minimized by presoaking them in clear water just prior to application. Metal, glass, and other heavy materials may need a strong cement, and for these any good white glue should be used.

Colors may be brushed in at any time. Oil, water color, casein, inks, and tempera may be employed, but thought should be given to their compatability with the binding medium. Black strokes may be added with pencil, India inks, crayon, or felt pen.

a. Use collage to develop a preconceived landscape.

Using India ink and water color, make a small, abstract landscape sketch in two colors and black. Develop interesting shapes which suggest your theme. Work for an interesting arrangement of black and color spots.

Select a support from whatever materials your instructor has available. Prime it with at least two coats of white latex paint thinned to the consistency of cream. This paint should brush or roll on the support without dragging. Allow it to dry several hours.

Lightly draw your design on the support with vine charcoal. Apply your adhesive in small areas and begin cementing down your tissues. If you are using PVA, presoak your papers a few moments in clear water before application, to minimize wrinkling.

Continually watch the effects obtained by overlapping the translucent tissue. If you feel the need for brush strokes of color, add them as you proceed.

When the entire painting is completed and dry, it may be given a coat of varnish or diluted PVA.

b. Collage is well suited to intuitive painting.

Select another support and prepare it for painting. Without any preconceived plan, begin applying the tissues, and other papers you have chosen, for a collage.

Be alert for suggestions which the emerging forms may make. As the patterns form, follow their lead and let your painting build itself. Follow your intuition. Add brush strokes of paint where you feel they are needed. When you are satisfied with the painting, let it dry. Compare your two collages. What can you say about them? Is one more interesting than the other? Why?

6. Explore the use of oils in landscape painting.

> To the teacher: Students seem anxious to paint in oils. This is possibly an influence out of the past which made oil a traditional medium. While the experience may be satisfactory for many students, it may be equally frustrating for others. There are many methods of applying oil colors but for the novice start with the standard brush and paint.

Prepare the student for his exploration of the oil painting medium. Do not overburden him with the many variations possible, but help him arrive at a point of departure from which his exploration will extend. Include such terms and methods as underpainting, impasto, toned ground, imprimatura, glazing and scumbling. If it will help the student solve a particular problem, the method may be demonstrated. The student may find the following books by Henry Gasser helpful: *Techniques of Painting*; and *Oil Painting, Techniques and Demonstrations*.

To overcome the problems of slow drying, you may wish to prepare a painting medium for class use. This medium is an expedient and is not recommended for permanent work. It consists of one part refined linseed oil, two parts of spar varnish, and four parts of turpentine. It is fast drying, has a pleasing gloss, and is semi-permanent.

Canvas boards provide the most convenient support; however, masonite, sized with white latex paint, is excellent. Illustration boards may be used if they are treated to reduce the absorbent quality with a solution of one part shellac in four parts of alcohol. Apply the solution over the drawing after it has been fixed.

To the teacher: Consider proper care of materials and their conservation. Show students how to use soap and water, after a turpentine rinse, to clean brushes. Paint should be saved from day to day on a glass palette and discarded only when it becomes too stiff for use. Unsuccessful paintings may be sanded smooth, the support reprimed, and used for sketching panels. Students should begin with a limited palette since this will reduce confusion. Such a palette might include:

white
zinc or lemon yellow
cadmium red light
alizarin
thalo blue
viridian
burnt sienna
black

a. On a support provided by your teacher enlarge one of your previous sketches. Use vine charcoal. When the composition is satisfactory, blow off any excess charcoal and fix your drawing with Krylon.

b. Use ultramarine blue and turpentine to wash in the major values of your drawing. Use a minimum of paint. The white of your support will serve as the light areas. This is called an imprimatura.

c. Lay in your important colors over the blue tones in broad, fearless strokes. Establish your lightest lights and deepest darks immediately so that you may plan all other values between them. Work from dark to light so that the lights do not become too chalky. Do not work up the details of any one object, but get your canvas covered so that you may study the relationships of each area and the quality of the big forms. Learn to use as few colors as possible when mixing tones. Too many may give a tired muddy effect. Too few may result in trite combinations. Remember the advice that the colors that come out of the tube are seldom just right.

d. Continue to overpaint until you have said what you have to say. Do your values seem right? Is there a feeling of space? Is the work convincing?

7. Explore the use of oils in abstract painting.

   a. From an early sketch develop an abstract interpretation.

   b. Transfer this to a support and fix the drawing as you did before.

   c. With broad strokes lay in your colors using an impasto technique. Try to be right the first time. Seek to establish an emotional appeal through color and form relationships.

   d. As each day's work dries, experiment with other methods of altering color. Use glazes of transparent color, scumbles of rather dry color.

   e. Experiment with a painting knife, your fingers, and any other instruments which you think may produce a unique effect.

8. Investigate casein as a painting medium.

To the teacher: Casein is a water-soluble color which, once it is dry, becomes insoluble. It may be handled with much water to achieve a semi-transparent effect or rather heavily so that it resembles oils. If used too heavily, it is subject to cracking.

Supports for casein are the same as for oils but good papers may also be used. Because it becomes brittle in spite of certain manufacturers' claims, it is best used on a solid support such as canvas board, masonite, wood, or homosote.

One of the finest supports for the medium is masonite which has been primed with gesso. This priming is not too absorbent, but somewhat more so than paper. Entire casein renderings may be done on this support and when dry have a pleasing mat effect.

Often underpaintings are rendered in casein in preparation for oils. When dry, the casein is isolated with a thin coating of dammar varnish. Oil colors may then be used to complete the painting either as glazes or in an impasto. When the picture is dry and the final varnish applied, the two mediums cannot visually be separated.

Brushes used in casein must be thoroughly washed with soap and water after each use because they will be ruined if casein is allowed to dry in them. A white china plate makes a good palette.

a. Enlarge one of your sketches in charcoal on a support suitable for casein. Before painting, fix your drawing with fixatif, or Krylon Workable Fixatif. Do not use ordinary Krylon.

b. Develop an imprimatura in either blue, burnt sienna, or earth green. Use a lot of water and let the white of your support help establish the light values.

c. Try to establish your lights and darks in full color. White will certainly have to be added to almost all of the lights, but the darks should contain no white. Build your colors gradually letting color show through color. Work freely but with enough restraint to preserve good drawing.

d. When you have said enough, STOP! Compare your casein painting with your others. What are some of the advantages of this medium? Do you feel that it may have disadvantages? What are they?

9. Experiment with value changes.

a. Make a 15" x 20" sketch of one of your previous paintings. Trace it, and transfer the drawing to three sheets of 15" x 20" illustration board.

b. Using casein or tempera develop three paintings based on three different value arrangements. Work in a broad poster-like style. In other words, use flat areas of color with very little modeling. Choose three of the following arrangements:
dark background, light foreground
light background, dark foreground
light background, dark middle ground, light foreground
dark background, light middle ground, dark foreground

c. If time permits, varnish one of the boards and experiment with oils as a means of finishing the picture. Use glazes, impasto, or any other technique which will enable you to model the forms. Keep your work simple.

C. Developing a mural in a media previously used

1. Landscapes or seascapes are often used as decorative murals in homes or business establishments. You have been commissioned to design a mural for a sporting goods store. You may choose either a hunting scene or one dealing with fishing.

2. Create several small sketches which you feel will establish the feeling of activity in the spacious areas of the mountainous woodland or the sea. Carry some of these out in color.

3. From your small sketches make an enlarged drawing, called a cartoon, the size of the finished mural.

Carefully solve each problem of composition, structure, lighting, and value distribution. Transfer this drawing to your final support.

4. Complete your painting in the medium of your choice using a technique which you feel will be appropriate to the mural's use.

III. CRITIQUE

Evaluating the results of experiments in painting is most subtle and difficult. Tests of a factual nature may measure retention of data, but certainly will not measure the student's ability to apply his knowledge.

A discussion period during which students evaluate an exhibit of their work may prove revealing. The student's use of technical terms, and his criticisms of organization and techniques may point out strengths or weaknesses in student understanding as well as in the program.

It may also be true that sufficient evaluation will result from letting the student's sketches and pictures speak for themselves. Arrange an exhibition. Perhaps you may encourage school-wide viewing by having an art-class-wide ballot on a favorite, and a school-wide ballot on its favorite.

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Leads the student from sketches to final painting. It is one of the most informative texts.

THE ELEMENTS OF ART

The basic elements of art are the fundamental parts of which all art is composed. They are:

1. Line, the outline or contour of an object or space. Line is also used to show movement or direction.

2. Form, the shape and structure of anything; figure. The dictionary lists form, figure, and shape as synonyms.

   Form usually suggests reference to internal as well as external structure.

   Figure applies usually to the form as determined by the lines which bound or enclose a thing.

   Shape, like figure, suggests an outline, but it carries also a stronger implication of the mass or body.

   Other terms which are used in the discussion of form are:

   Mass, a quantity of matter, or the form of matter, cohering together in one body or quantity, usually of considerable size.

   Volume, space occupied, as measured by cubic units. Hence, a mass; bulk.

   Space, that which is characterized by extension in all directions, boundlessness, and indefinite divisibility. A limited extension in one, two, or three dimensions; a part marked off in some way. In advertising, the page or part of a page used for advertising, or the number of agate lines so used in a newspaper.

3. Value, the degrees and effects of light and dark. Tone is also defined in terms of modifications in value.

4. Color, a quality visible only in light. It has three properties; hue, the name given a color or the color itself; value, the light or dark shade of a color; and chroma, the intensity or degree of brilliance of a color.

5. Texture, the surface quality of an object. In general, texture, is the surface as determined by structure.

The following vocabulary implications are helpful for boys and girls:

In terms of line,

- -- direction may be vertical, horizontal, diagonal

  vertical lines symbolize uplift, spirituality, growth.
  horizontal lines express strength, solidity, repose, equilibrium.
  diagonal lines mean action, vitality, unrest.

- -- mood may be expressed by type as well as direction

  long smooth curves are graceful.
  short choppy curves are lively.
  angles move the eye with quick action.
  straight lines give a sense of uplift when vertical; calmness and peacefulness, when horizontal.

In terms of form,

- -- squares, rectangles, triangles, and circles are two-dimensional geometric forms.
- -- cubes, spheres, cones, and pyramids are three-dimensional geometric forms.
- -- leaves, stones are irregular, natural forms.
- -- irregular forms are made for special purposes, not uniform.

In terms of value, as dark and light,

- -- the pattern of dark and light throughout a work of art is very important. Contrasts bring force and hold interest.
- -- dark values are often referred to as low values and the light as high values.

- -- dark values may be described as low in key.
- -- light values may be described as high in key.
- -- strong contrasts express excitement or action.
- -- closely related values suggest quiet, rest, harmony.

In terms of color,

Hue is the name of the color. Hues form a continuous range from red to violet.

- -- the color circle is a plan for showing the relationship of the range of colors.
- -- basic colors in painting may be termed primaries: yellow (Y), blue (B), red (R).
- -- colors mixed from primaries may be called secondaries: violet (V), orange (O), green (G).
- -- colors mixed from any secondary and an adjacent primary may be called tertiaries; YO RO RV BV BG YG

Value in color describes the lightness or darkness.

- -- value is generally described as light, middle, or dark: light blue, or dark red.
- -- white is the lightest possible value. It is neutral.
- -- gray is the term used for medium values.
- -- total black is the darkest possible value. It is neutral.

Intensity is the third characteristic of color, and describes the quantity or purity of color. Chroma, sometimes used as a synonym for color, describes hue and saturation together. White, blacks, and grays have no chroma.

- -- intensity is generally described in terms of bright and vivid, pale or tinted, and dull or neutral.
- -- pure color is described as bright, vivid, saturated.
- -- tint describes the combination of much light and little color.
- -- neutrality describes the absence of color, as white, black and gray.
- -- white, black and gray have no chroma.
- -- graying of color is the process of neutralization. It means reducing the purity of a hue by adding its opposite in the color range. Violet is grayed by adding yellow.

PRINCIPLES OF DESIGN

The principles of design are the standards or rules for planning or arranging elements in a work of art. They are:

1. Emphasis, dominance. We bring out the center of interest in a design, or the main object of a composition, through size and position.

2. Subordination, keeping parts of the composition secondary in interest and importance in relation to the point of emphasis.

3. Balance, equal weight distribution of lines, forms, colors, tones, and textures. There are different types of balance: formal or symmetrical, with distribution of weight the same on both sides; and informal or asymmetrical, with the distribution different on two sides.

4. Rhythm, movement. We use the various elements to help the eye travel over the whole composition, with an accent upon the point of emphasis.

    a. Repetition, recurrence of a motif or element throughout the design. Repetition is one approach to rhythm.

    b. Transition, graduation from one part to another. Lines, shapes, values are used to relate opposing lines, shapes, values.

5. Proportion, comparative relationship of parts of a design in regard to their sizes, shapes, and quantities.

6. Contrast, diversity of adjacent parts. Generally one part is used to emphasize the other. Art needs some contrast for spirit and liveliness. Opposition, such as light against dark or opposing lines, is used for similar purpose. It also helps bring emphasis.

7. Variety, difference in kind and quantity of parts of a composition. We add interest by using large, medium and small shapes; dark, medium and light values; rough, medium and smooth textures.

8. Fitness, appropriateness to use, suitability.

9. Harmony, agreement between the parts of a design or composition, giving unity of effect or an aesthetically pleasing whole. Harmony, and unity, in a work of art, have much in common. They both depend upon a close and pleasing relationship of lines, shapes and sizes of forms, colors, values and textures.

10. Unity, state of being one. The reference of the elements of an artistic composition to a single main idea or point of view; also the singleness of effect or consistency of style and character secured. The character of a thing that is a whole composed of many different parts.

HELPFUL HINTS FOR MEDIA EXPLORATION

Encaustic painting may be made with purified beeswax or paraffin, broken into pieces and dissolved in turpentine. Color may be added with powdered tempera, oil paints or wax crayon. Paint on heavy weight cardboard or mat board. Warm the mixture and the board to help the colors spread and fuse. Dammar varnish may be added to the beeswax mixture to harden the surface.

Masonite board, coated with gesso, makes a better surface for encaustic painting.

Gesso may be made from rabbit hide glue, which is broken into pieces and soaked over night. In the morning the mixture is heated in a double boiler until melted. Then ordinary whiting is added, and last, a bit of zinc white. Use two lbs. whiting to two lbs. rabbit hide glue.

Gesso panels may be made from masonite boards. Apply a thin coat of rabbit hide glue water and let it dry. Then apply gesso solution in four or five thin coats, on both sides, if needed. Sand lightly between last two coats. Gesso may be used also on glass, metal or wood. It gives interesting character to picture frames.

Oil paints may be made by adding linseed oil to powdered paint. Use turpentine for solvent.

Enamel paint may be made by adding varnish to powdered paint. Thin with turpentine if needed.

Gouache binders may be made from gum arabic or gum acacia (¼ lb.), honey (3 oz.), cold water (1 quart) and benzoate soda (pinch). Tie gum powder (from drugstore) into porous cloth bag, such as nylon stocking foot. Suspend the bag in water over night, or until dissolved. Add benzoate of soda to preserve. Shake well; keep in sealed jar. Mix with dry pigment and powdered clay as needed.

Starch paint may be made from liquid starch and tempera paint. To work with the hand and fingers keep the solution the consistency of cream. Use powdered paint for color. Add a small amount of glycerine to retard the drying process. Wheat paste may be used in place of liquid starch.

Fixatif may be made from denatured alcohol (2/3 parts) and shellac (½ parts). Shake well and let settle before using. Use any hand sprayer.

Screen painting medium, water soluble, may be made from a liquid starch and powdered tempera, with glycerine added to retard drying. This medium works well with simple paper stencils.

A screen painting medium may be made by adding soap flakes to undiluted liquid tempera.

Screen printing frames may be made from any frame or hoop (such as embroidery) over which cotton marquisette may be stretched tightly. Use ditto, newsprint, or similar paper, cut the stencil, and apply it to the under side of the screen with water. Then squeeze the water-soluble medium through from the top.

Inner tubes from tires may be cut and mounted on a block of wood with rubber cement for printing.

Sawdust mixtures are made from sawdust (1 quart), wall paper paste (1 cup), and water enough to make a thick substance which can be shaped in the hands. This mixture is suitable for puppet heads,hands and feet, and small modeled objects. When dry, the mixture is light in weight, hard and durable.

Dough modeling mixtures are made from flour (3/4 cup), salt (1 cup), and cold water (1 cup). Heat in double boiler to make a stiff dough which will not stick to hands. Add powdered paint for color while mixing, if desired. The model becomes quite hard after about three days.

Plaster of Paris color blocks may be made by adding powder paint to the plaster. Measure water sufficient for the block into a pan, and sift the plaster into the water until the plaster reaches the top and forms an island in the center. Mix the plaster from the bottom to allow the air bubbles to escape. Add color as desired. Pour into pasteboard box or other mold.

Zonolite carving blocks are made by mixing zonolite (about 4 parts) to cement (about 1 part) and a dash of plaster. The mixture is poured into a box and allowed to set for carving. An ordinary knife can carve this block. Variations in hardness are made through changes in proportion of materials. The more zonolite used, the softer the block.

Papier maché is a familiar modeling material. Variations may be made in the materials added to the soaked newspaper mixture. Try dry wheat paste, glue flake solution, starch and other mixtures.

Asbestos modeling material may be made from dry asbestos flakes and a strong glue flake water solution. When dry, the modeled pieces are hard and do not break easily. The weight makes this material useful for marionette feet, paper weights. For larger figures, use an armature to avoid undue weight.

Salt blocks for carving may be purchased at a rural feed supply company. Protective glasses should be worn by the student when he uses this medium.

Small blocks of marble for carving may be obtained, usually free of charge, from a quarry or monument company. Protective glasses are needed.

Oak or fruitwood logs or branches offer a challenging and satisfying medium for carving on a large scale. A hammer and chisel are the main tools, and an electric sander helps in providing a smooth finish, if desired.

Armatures for modeling figures with asbestos and plaster of Paris mixtures may be made from scrap wood and wire screening strips; from smooth wire wrapped in torn cloth strips or from twisted wires, to provide bite for the modeling material; from insulated scrap wire; from discarded light bulbs and other light weight salvage materials.

Wax for polishing wood may be prepared by combining: 1 pound beeswax; $\frac{1}{4}$ pound paraffin; and 3 quarts turpentine. Heat the wax together; then add turpentine and beat. Do not heat over an open flame.

Bits of colored glass may be fused in a pre-heated enameling kiln. Fused glass lends itself to jewelry making, since wire fasteners may be fused into the glass. Enameling fibers and lumps, as well as colors can be added for other effects. Fused glass can also be used to make mosaics. Glass scraps may be obtained from stained-glass manufacturers, or old bottles may be donated by the students.

WAYS OF REMOVING SPOTS AND CLEANING BRUSHES

Oil paint - turpentine, plus soap and water. Turpentine will not hurt fabric if you follow the rules in applying any other "spot remover".
Textile paint; enamel; block print ink, oil base--turpentine plus soap and water.
Block print ink, water base; poster paint--soap and water.
Glue - hot water. Use an old brush.
Water color - water.
India ink - send clothing to cleaners.
Shellac; varnish - alcohol; soap, and water.

VISUAL RESOURCES

Films

The A V Leaflet, distributed to teachers, lists in terms of activity areas the art films available through the Board of Education. Orders for films are placed through the school A V coordinator.

Filmstrips

Filmstrips for use in the art department are purchased on an annual order. Gradually a school may build a sound filmstrip library.

Some slides, filmstrips (and prints) may be ordered through your school library. Detailed listings and catalogs are available in each school library.

Junior Red Cross filmstrips presenting an exchange of International Children's Art may be borrowed from Junior Red Cross Headquarters, Baltimore, Maryland. A filmstrip is available in the art supervisor's office.

Other Sources of Slides and Filmstrips

American Library of Color Slides
222 West 23rd Street
New York, New York

Colored Slides Cooperative
40 East 52nd Street
New York, New York

Encyclopaedia Britannica Films, Inc.
1150 Wilmette Avenue
Wilmette, Illinois

Herbert E. Budek Company, Inc.
55 Poplar Avenue
Hackensack, New Jersey

International Film Bureau
57 East Jackson Boulevard
Chicago 4, Illinois

(Available from no other source. Slides and Filmstrips of the Museum of Modern Art on Painting, Sculpture, Architecture, Industrial Design.)

Society of Visual Education, Inc.
Chicago 14, Illinois

Reproductions of Paintings

A central collection of large print reproductions of paintings is organized on a traveling loan basis, with a planned schedule.

Smaller print reproductions are made available from two sources: in a central collection in the art supervisor's office, from which any art teacher may borrow; in folios made available from time to time on the art reference book order.

Catalog Sources of Art Prints

Artext Prints, Inc.
Art Extension Press
Westport, Connecticut

Museum of Modern Art
11 West 53rd Street
New York 19, New York

Dr. Konrad Prothmann
7 Soper Avenue
Baldwin, L. I., New York

New York Graphic Society
10 West 33rd Street
New York 1, New York

National Gallery of Art
Washington, D. C.

Sources of Exhibits

Art Supervisor's Office, Aigburth Manor
Collection of student's work - cooperatively maintained

Baltimore Museum of Art, Charles and 31st Streets
Prints and various materials are made available for teachers who reserve them in advance, arrange to collect and return them on schedule. The exhibits are loaned for two weeks. Three-dimensional objects must be displayed in locked cases. Lists of exhibit materials available may be obtained from the Education Department of the Museum. Ask the museum for information.

Museum of Modern Art
Museum Extension Division
Fifth Avenue, New York
(Prints and various lending collections are available, for minimum charges. Write for information.)

Museum Facilities

The Baltimore Museum of Art offers many exhibits during the year. The museum hours are 10:00 a.m. to 1:00 p.m. and 2:00 p.m. to 5:00 p.m. on all days except Monday and Tuesday morning. Make appointments for visits by classes with the Education Department of the museum two weeks in advance. Request help for talks about exhibits three weeks in advance. Ask the museum for information.

The Maryland Historical Society Museum offers continuing exhibits from 9:00 a.m. to 5:00 p.m. daily except Saturday when it closes at 4:00 p.m. Make appointments for visits by classes with the director two weeks in advance.

The Peale or Municipal Museum offers historic and contemporary exhibits available for classes from 11:00 a.m. to 12:00 n. and from 1:30 p.m. to 2:30 p.m. daily except Monday. Arrange in advance with the director of the museum.

The Walters Art Gallery emphasizes exhibits of art objects from the historic past. Arrange for visits with the Education Department of the museum in advance.

The Maryland Institute of Art offers various exhibitions, for which announcements are made from time to time.

Many classes are able to arrange visits to Washington to see art collections in:

The National Art Gallery

Phillips Art Gallery

Corcoran Art Gallery

Shakespearean Folger Library

Smithsonian Institution

Library of Congress

Art Periodicals

American Artist
24 West 40th Street
New York 18, New York

Arts and Activities
8150 North Central Park Avenue
Skokie, Illinois

Arts and Architecture
3305 Wilshire Boulevard
Los Angeles, California

Art Education
NAEA
1201 16th Street, N. W.
Washington 6, D. C.

Art News
136 East 57th Street
New York, New York

Creative Crafts
Oxford Press
6015 Santa Monica Boulevard
Los Angeles 38, California

Ceramics Monthly
4175 North High Street
Columbus 14, Ohio

Design
Design Publishing Company
337 South High Street
Columbus, Ohio

Everyday Art Magazine
American Crayon Company
1706 Hayes Street
Sandusky, Ohio

Ford Times (free)
Local Ford Dealers

School Arts Magazine
Printers Building
Worcester, Massachusetts

GLOSSARY

Abstraction - (1) a visionary composition emphasizing abstract character; hence, often called pure abstraction. (2) a composition in which a figure is transformed into a non-representational design with recognizable elements.

Agate line - a unit of depth measurement used by newspapers. There are 14 agate lines to the column inch. Newspaper advertising is often sold by the agate line.

Amorphous shapes - forms which have no determinate shape; hence, free shapes which are irregular.

Analogous colors - similar colors being related through a common primary color, as red-orange, orange, yellow-orange, yellow, yellow-green, green and blue-green; hence, related colors with a common primary.

Appreciation - the action of understanding sufficiently to enable one to admire or enjoy a thing's excellence; a favorable critical estimate; awareness or perception of aesthetic value.

Armature - a framework which supports clay during the process of modeling.

Asymmetrical balance - arrangement in which two sides are equal in weight but not alike in shape, size, or placement.

Bas-relief - low relief in sculpture, with modeling slight, no part being entirely detached from the background. Modern coins are very low relief.

Batik - a method of creating designs on fabric or paper, by coating with wax in parts, to resist dye or water color which is added; also a design or article so decorated.

Biscuit - unglazed pottery after the first firing; hence, bisque ware; also, a very light tan color.

Bisque firing - first firing of unglazed ceramic ware.

Bleed - (1) to extend to the edge of the page and seemingly run off; no margins. (2) the property of certain colors to seep through another when overpainted or overprinted.

Bleed edge - that part of an illustration which extends over its actual dimensions into the margin to permit adjustment for making plates or adjustments on the press. Usually no more than ¼ inch.

ody copy - copy thus identified is used in the text of an ad.

rayer - a device for rolling ink by hand and spreading it on another surface, as on a block for printing.

urin - a pointed steel cutting tool used by engravers and marble workers.

alligraphy - handwriting; hence, free line drawing; elegant writing.

ello-cut - a relief approach to printing using masonite, white glue, and cutting tools to create the plate for printing.

eramics - the art of making articles of baked clay; the articles formed of clay and baked.

haracter - a graphic symbol or letter.

haracter count - to determine the number of letters, spaces, and punctuation marks in any copy for the proper fitting into a page.

hroma - intensity or purity of color; brightness or dullness.

ollage - a composition of various materials, mounted together, transposed with relating lines and color spots into a pleasing decoration of contrasting textures; a type of abstraction; hence, any mounted composite design.

olor wheel - an arrangement of colors to show how they are related; the range of colors or hues are best shown in the form of a circle, because we may start at any point in the range and return to it.

omp; Comprehensive - a sketch, dummy, or layout with a high degree of finish.

omplementary colors - two hues which are opposite to one another on a color wheel and which, when mixed in balanced proportions, give a neutral gray.

omposition - organization of the parts of a work of art so as to produce a harmonious whole.

onstruction - process of building a form with various materials in the manner of sculpture, models, or other art forms.

ontour - the outline of a figure, body, or mass; to draw the contour of a map, etc.

ontrast - difference of adjacent parts in color, line, or shape, or value.

opy - the written material to be set in type for any printed matter.

Cursive - letters such as script having round flowing forms.

Design - to develop a plan or model to be executed; a plan; the arrangement of details which make up a work of art.

Dimensional - describing length, breadth, thickness. Two-dimensional ascribes length and breadth; three-dimensional ascribes length, width, and thickness.

Diorama - a small scenic representation using three-dimensional figures and objects against a background, to give a feeling of distance. Miniature stage settings and box pictures are diorama types of projects.

Double truck - a two page ad or two page spread.

Dragged color - heavy color, often white, applied over tacky underpainting with the side of a brush to create an effect somewhat like a scumble.

Dry point - a form of intaglio; an etching in which lines are scratched into the plate as opposed to the use of acid.

Dummy - a full size model of a product such as a package; sometimes called comp; a bound layout of a booklet or publication.

Encaustic painting - a process combining colors with wax and afterwards fusing them with heat, thus fixing the colors.

Engobe - a colored clay slip or powder used to decorate pottery.

Engraving - the process of incising a design upon a copper plate with a sharp instrument from which a printed impression can be made. Also the impression made from such a plate.

Etching - the process of engraving a design upon a copper plate, by means of an acid or mordant, from which a printed impression can be taken. Also the impression from a plate so made.

Face - type face, the actual printed symbol. Identified by specific names as Caslon, Bodoni, Scotch Roman, etc.

Fantasy - an emotional art stressing extravagant imagination to create moods.

Fat - color loaded with oil; or a medium containing much oil. Fat mediums have more binding power than lean ones. Always paint from lean to fat.

Finished art - art work sent to the engraver or printer for the production of the finished product.

Fire - process of changing pottery by the action of heat in a kiln.

Fixative - a preparation for spraying chalk or charcoal drawings to fix or set them.

Format - the shape of a block of stone, or wood, etc., before carving; the shape of a support within the confines of which a painting is to be executed.

Frotte - a multicolored lay-in of a painting executed in lean glazes.

Frieze - a series of related compositions or an ornamental band of pictures, usually placed to fit on a band of wall space in a classroom.

Gesso - a mixture with a plaster of Paris or whiting base, used to treat surfaces for painting.

Glaze - (1) a coating of prepared powdered glass, which is applied to pottery, in a cream-thick water mixture. When fired in a kiln, the coating becomes glass to complete the glazing process. (2) a transparent application of color over an underpainting to alter values and hues.

Glost - glazed pottery or ware.

Glost firing - the second firing of the biscuit piece which has been coated with glaze. This term means glaze firing.

Glycerine - a form of alcohol which may be used to retard the drying of tempera colors; it will also cause them to dry with a minimum of variations resulting from brush strokes.

Gouache - opaque watercolor; may include tempera, designers colors, and casein; also any transparent watercolors mixed with Chinese White.

Gouge - a sharp tool with a U or V shaped point used for cutting linoleum or wood surfaces.

Graphic Arts - the arts of painting, drawing, engraving and any other arts which pertain to the expression of ideas by means of lines, marks or characters on a surface.

Greenware - the clay object which has not been fired.

Ground - (1) the surface on which one paints, thus the priming coat. (2) the acid resistant wax coating of an etching plate.

Gutter - the white space between pages of a publication; a real problem in double trucks.

Half tone engraving - photo engravings employing shades of gray. These are achieved by using a "screen" to break up a picture into many minute dots.

Handcrafts - productive creative work made by hand with the aid of tools or simple hand-controlled machines.

Harmony - agreement between the parts of a design or composition.

Head, heading - the title of an advertisement; may be a slogan or an attention getting phrase.

Heddle - the part of the loom which makes a set of warp threads so that they can be lifted together to form a shed for weaving.

Hue - the quality of difference in color which gives each a name, as red, yellow, green, blue, etc.

Impasto - a heavy, thick application of paint either with a brush or knife in which the texture of the brush stroke is emphasized.

Imprimatura - a transparent monochromatic glaze generally used to lay-in a painting; however, may be used at any time as, for example, a yellow glaze over cobalt monochromatic lay-in.

Intaglio - a design cut below the surface so that an impression made from it is in relief.

Intensity - color strength. See section on art elements.

Italics - any slanted letter other than scripts.

Kiln - the special oven in which ceramic ware is fired; a special oven.

Kiln furniture - small supports, varied in shape and size, used under ware to which glaze has been applied, to prevent glaze from sticking to kiln floor or to shelves.

Kiln gard - electric control, attached to a kiln to turn off the electricity when firing is completed.

Kiln wash - a powdered preparation which is mixed with water to make a coating to brush on kiln floor and shelves to prevent glaze from sticking to them.

Layout - the organization of an advertisement, poster, book jacket, etc.

Lay out - the act of arranging various elements in a pleasing composition.

Lean - colors or mediums containing very little oil; turpentine is a lean medium having no binding power.

Leather hard - the condition of a clay object which has dried enough to be firm and nonpliable, but still can be trimmed and smoothed; a stage where sgrafito, engobe painting and other greenware decorating processes are used.

Lettering - act of making letters by hand; the letters made.

Line engraving - photo engravings containing only solid black and white; no half tones. Grays are sometimes simulated by using mechanical shading devices.

Lithograph - the impression of a design made on a certain kind of stone by means of a greasy pencil or crayon. The print obtained by the printing process.

Litho crayon - a greasy pencil or crayon with which to draw on a stone or plate.

Logotype - (Logo) a name plate; the company's name. ie: General Motors.

Loom - a frame for interweaving yarn or threads into a textile.

Marionette - a puppet figure, with jointed parts, moved by strings.

Maskoid - a commercially prepared colored waterproof liquid used to mask out intricate small areas which are to remain white in watercolor painting.

Medium - a means of expression, such as materials and tools; also vehicles such as oil, water, PVA.

Miter - cutting two edges or ends of a piece of material at an angle so that they fit together and form a joint.

Mobile - a form or unit of related forms suspended and moving in space. It uses movement as an element of its beauty as an art form; is classified as three-dimensional form.

Modeling - the act of shaping a form, as in clay.

Mold, mould - the cavity in which a form is shaped; also the body containing the cavity; as a plaster mold for casting plaster or clay or a sand mold for casting plaster; also to shape or model.

Monochromatic - many values and intensities of one color.

Montage - the process of producing a composite picture by combining several distinct pictures often so they blend with or into each other; the composite picture.

Mood - emotional content often determined by color scheme; also influenced by drawing and design qualities.

Mosaic - a surface decoration made by setting in patterns small pieces of colored glass, tile, paper, seeds or other material.

Mural - a picture or decorative composition made for a wall space.

Needle - a sharp instrument used to scratch the design into the surface of the plate, used like a pencil and made of steel.

Non-objective art - development of a pleasing arrangement using art elements without concern for factual presentation of objects.

Objective realism - impersonalized interpretation of reality, stressing the beauty of line, form, color, and texture in nature. The artist's personal view is subordinated.

Opaque - that which we cannot see through.

Originality - quality of being first in order or existence; not copied, imitated or reproduced; independent and creative in thought or action.

Palette - an instrument on which paints are set out and intermixed; also the selection of colors within the framework of which a painting may be rendered.

Panorama - a comprehensive pictorial presentation of a scene; hence, a miniature overview as might show a region from several directions; or a model which can be viewed from more than one angle.

Papier-Maché - a modeling material made of torn paper strips, or pulp, and paste, or glue sizing.

Pastel - crayons made from a paste of ground colors; a drawing made with such crayons; the art of drawing with pastels; any of various pale colors of high brilliance and low or medium saturation.

Patina - a film formed on copper and bronze by exposure, or by treatment with acids; sometimes referred to as the color of a finished piece of sculpture.

Perspective - the representation of objects as they appear to the eye.

Photo engraving - a photographic method of making printing plates as opposed to hand methods. Art work is photographed and the negative is placed over a sensitized plate. Then the plate is exposed to light followed by an acid bath. The acid etches the design into the plate.

Piece mold - a mold made in a number of pieces so it may be removed without damage; hence, used to produce any desired number of casts.

Planography - a process of printing from a flat plane or surface, such as a lithographic stone.

Plinth - a block serving as a base for a statue that is modeled as a part of the statue.

Poster - a bill or placard, often of a decorative character, the purpose of which is usually to publicize a cause, an event, or a product.

Pounce - a dauber, consisting of sponge or a wad of cotton or cloth with which pigment is applied to a surface.

Prime - to coat a support with white lead or other material in preparing a surface on which to paint.

Printing - act of printing; especially typography; hence, not hand lettering.

Printing Processes - the art and techniques of making designs by impression, stamping, braying, rubbing, screening and stenciling; hence, various inventive uses of hand printing tools and media.

Puppet - a small figure moved by hand or strings and wires, in mock drama.

PVA - poly vinyl acetate; also white glue; used as a medium for collage; may also be used as a size or a vehicle.

Realism - representation in art of the visible realities of life and an insistence upon facts, actuality, and immediate experience as subject matter.

Relief print - a picture or design made by printing the raised surface areas of a linoleum, plaster or woodcut.

Representation - a likeness, picture, model, or image intended to resemble, or represent an object, figure or scene.

Resist - a coating substance, such as wax, is applied to a surface to repel a medium; the counteraction adds to and is part of the resist process.

Sans-serif - letters with no serifs; Gothic letters.

Score - a line or long mark as a scratch made with a sharp instrument to facilitate folding as in paper sculpture.

Screen - an instrument for breaking up half tones into dots for photo engraving; screens are now incorporated in litho films.

Script - letters derived, in general, from handwriting.

Sculpture - the art of producing three-dimensional figures; form expressed in three-dimensions.

Scumble - the application of rather dry light colors over dark tones in a very loose manner; may be likened to dry brush techniques.

Serigraph screen print - a process of printing that uses a stencil technique to keep out unwanted ink. The ink is allowed to pass through open areas and is pressed through stretched silk to the surface to be printed on. The print has a characteristic weave imprint caused by the silk. Strictly an artist-made color print.

Sgrafito - the use of scratches or scoring to produce decorative designs, as on clay objects.

Shed - the opening between sets of warp threads when one set is lifted to permit the weft thread to move through.

Shim - a thin slip of metal used to form a wall which will permit the separation of the parts of a mold.

Silhouette - a representation of the outlines of an object filled in with a uniform color, two-dimensional; hence, a shadow picture.

Size - gelatin or glue used to render a support less absorbent before it is primed.

Slip - a creamy clay and water mixture, used primarily for pouring into plaster molds to form clay objects.

Spatter - an art process of sprinkling with a liquid to produce a variation in tone or surface finish.

Squeegee - a device used to push paint through stencil openings on a screen as in screen printing processes.

Stabile - a non-moving, non-objective three-dimensional construction depending on line and mass or color for interest.

Stencil - a sheet cut with openings to present a design or figure which permits ink or paint to be applied through the openings onto a surface; the design produced by the stencil.

Stipple - the process or technique of presenting a surface in dots, using pen, brush, or other tool in repeated small touches; a gradation of light and shade produced by separate touches.

Subjective realism - pictorial presentation of moods in nature or of the artist's reaction. Reality as subject matter is used to portray personal feelings, emotions, moods.

Support - any material on which a painting is rendered; includes paper, canvas, masonite and similar substances.

Symbolism - the representation of a general truth or quality by a visible symbol.

Symmetrical - having similar halves in size and shape of parts.

Technique - method or details of procedure essential to expression in art.

Tempera - an opaque water-soluble paint, available in both powdered and liquid form.

Texture - the visual and tactile quality of a surface. (See Elements of Art.)

Three-dimensional - see dimensional.

Thumbnails - small preliminary sketches or studies.

Toned ground - a ground toned with color during application, or with a glaze of color after application. The color of such grounds often becomes an important part of the color scheme.

Translucent - that which can be seen into but not through; hence, partly transparent.

Transparent - that which can be seen through; hence, transparency refers to (1) a picture, as on stained glass, viewed by light shining through it and (2) a box framework covered with thin material and lighted from within to permit display.

Two-dimensional design - the organization of space into well related areas of flat pattern. There are three types of two-dimensional design: single units, borders, surface patterns.

Tusche - a grease-like liquid that is used in the process of creating the stencil. A resistant used in lithography and in etching.

Underpainting - generally heavy color used to build up a picture over which glazes will be applied.

Value - degree and quality of dark and light in the neutrals and in colors; hence, the term dark and light usually refers to the pattern of values in a work of art. (See Elements of Art.)

Vehicle - any painting medium such as linseed oil, water, PVA.

Vertical - perpendicular to the horizontal plane; straight up and down.

Visual - rough suggestive layout preceding the comp.

Visualizer - the layout artist who produces visuals.

Vignette - a term used in illustration to denote a picture which does not extend to the edges of the print area.

Ware - ceramic products, fired or unfired.

Warp - the threads lengthwise in the loom, crossed by the warp.

Waste mold - a mold which must be destroyed in the process of producing a cast.

Wedging - process of working out air bubbles from clay, usually by cutting a lump of wet clay in two and dashing the two pieces together a number of times.

Weld - joining two parts as if they were a single piece.

Woodcut - a design engraved upon a block of wood in such a way that all the wood is cut away to a slight depth except the lines forming the design. Also the print made as a result of the printing process.

Woof - the threads that cross the warp in a woven fabric; hence, the thread carried by the shuttle; the weft; the texture of cloth.

Zonolite - a commercially prepared insulation material, very light in weight; used by builders.